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GUIDE  
TO  
THE CONSERVATORY;  
BEING A  
CONCISE TREATISE  
ON  
THE MANAGEMENT  
OF THE  
HOTHOUSE AND GREENHOUSE;  
THE FORCING OF BULBS, SHRÜBS, ETC.,  
AND  
THE BEST MODE OF KEEPING UP A SUCCESSION OF BLOOMS THROUGHOUT  
EVERY MONTH OF THE YEAR;  
EXEMPLIFIED IN  
A SELECT LIST OF THE MOST ADMIRABLE PLANTS  
OF THE PRESENT DAY,  
UNDER THE ARRANGEMENTS OF JUSSIEU AND LINNÆUS,  
INCLUDING THEIR NATIVE COUNTRY, PROPAGATION, AND THE  
SOIL ADAPTED TO EACH.

BY RICHARD BAINBRIDGE,  
FLOWER GARDENER TO THE RIGHT HONOURABLE LORD WENLOCK.  
FROM NOTES OF THE AUTHOR'S DAILY PRACTICE,  
AND COMMUNICATIONS FURNISHED BY  
LIBERAL EMINENT FLORICULTURISTS.

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LONDON:  
ROBERT BALDWIN, 47, PATERNOSTER ROW.

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1842.

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## PREFACE.

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AN introduction to a book may be so far useful as it may serve to explain the writer's design, and enable the reader to pass a fair judgment upon his performance; for unless his particular view be well understood and considered, it is possible that he may be rashly censured for disappointing those hopes which he could not have fulfilled without departing from his plan. One or two observations, however, will, in the present instance, be sufficient to apprise the reader what he may expect from this publication. It is intended, then, merely as a Guide to the Greenhouse and Conservatory; containing, in as concise a manner as possible, those necessary directions for keeping up a succession of bloom during every month of the year; so that the Conservatory may never be wanting in a display of that beauty and loveliness which ever adorns the vernal season, and renders its name, Spring, so peculiarly and gracefully appropriate.

The Author's next object is, to place within the reach of every student of the science of Floriculture, an easy and practical treatise on a select list of the most choice and admired plants of the present day ; so as to enable him to pursue his studies with pleasure, ease, and perspicuity, that he may fulfil the several departments of his office, without encumbering his time with those experiments necessary to the attainment of so valuable a knowledge. If the humble efforts of the Author's pen have accomplished this end, he will feel himself richly compensated, in being enabled to contribute to the advancing of one step towards the acquisition of useful knowledge. At the same time, he begs to tender his heartfelt thanks to those useful cultivators of Horticultural and Floricultural science who have so kindly aided him in his arduous task ; especially in furnishing him with the valuable information given on the treatment of several particular plants.

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N. B. For the names of plants noticed in this work, see Index,  
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# GUIDE

## TO THE

### CONSERVATORY.

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#### THE CONSERVATORY.

THIS structure is in most instances attached to the mansion, and is appropriated for the growth of plants in borders, as standards; also for climbers for training upon trellises, and is supplied with plants in bloom from other houses. As the construction of the Conservatory must vary according to the style of the mansion, I shall pass this over with few remarks. In the first place, it ought to face due south; then, when the site is fixed upon, remove the soil and proceed to lay the drains to secure a dry bottom. The borders should then be covered one foot thick with old broken bricks, clinkers, or any other porous materials. The roof ought to command as much of the sun's rays as possible, and to be so constructed as to admit air.

The Conservatory at Rise, the seat of R. Bethell, Esq., constructed by Mr. Croskill of Beverley, ad-

mits air by means of a small dome with the greatest ease. When air cannot be admitted in the roof, the ventilators must be at the top of the back wall. If the ventilators be moved by rods and pinions, any quantity of air is admitted with the greatest ease by turning a wheel or small handle. The front sashes must be moveable, so that both at top and bottom air can be given in that part of the house.

In planting the Conservatory, the first consideration is the effect to be produced: this is of chief importance, whether the plants be in masses, or blended together as a mixed group, so that light and shade be well mingled together; and this will be effected by placing plants with light airy foliage with those of a dark and thick one near together, in order to produce an irregular outline. Those which are pendent growers should be put with those which take an upright or oblique direction; if due regard be paid to this arrangement a most beautiful whole will be the effect produced. Having determined upon the situation of each individual plant, fill up the borders with soils proper for the several kinds of plants. Do not chop the soil very small, but allow it to remain as rough as convenient for planting; let it remain a short time to settle before putting in the plants: in planting, be careful to set the matted roots at liberty and to spread them in a horizontal direction. When all is planted, give a good watering to refresh the plants

and settle the earth round the roots. Keep the foliage moist by syringing for a short time. Nothing more will be necessary if the planting be performed in the winter; but if it should be done in summer, shade the house for about a fortnight, and keep it nearly close during the day, and quite so at night.

#### A LIST OF PLANTS SUITABLE FOR A CONSERVATORY.

This list is a selection only of the plants which might be given, but as it contains those which possess great beauty, both in foliage and flower, and a variety of scented blooming plants, I consider it better adapted to my work than one of a more general and mixed description.

[*a.* Beautiful foliage. *b.* Beautiful flowers. *c.* Scented flowering plants.]

Acacia	2 Johnsoni <i>a.</i>
1 Kermasina <i>a. b.</i>	3 Vittata <i>a.</i>
2 Decipiens <i>a. b.</i>	Azalea
3 Daviesifolia <i>a. b.</i>	1 Indica <i>a. b.</i>
4 Dealbata <i>b.</i>	2 Phoenicia <i>a. b.</i>
Agave	3 ————— alba <i>a. b.</i>
1 Americana <i>a. b.</i>	Banksia
2 Americana variegata <i>a. b.</i>	1 Speciosa <i>b.</i>
Amaryllis	2 Oblongiflora <i>b.</i>
1 Formosissima <i>a.</i>	Brugmansia
	1 Suaveolens <i>c.</i>

- |  |  |
|--|--|
| <p style="text-align: center;">Bowera</p> <p>1 Rubifolia <i>a. b.</i></p> <p style="padding-left: 2em;">Citrus (several varieties) <i>a. c.</i></p> <p style="padding-left: 2em;">Camellia (several varieties) <i>a. b.</i></p> <p style="padding-left: 2em;">Cereus <i>b.</i></p> <p>1 Speciosissima</p> <p style="padding-left: 2em;">Callistemon <i>a. b.</i></p> <p>1 Speciosa</p> <p style="padding-left: 2em;">Corræa</p> <p>1 Pulchella <i>a. b.</i></p> <p>2 Dickinsonia <i>a. b.</i></p> <p style="padding-left: 2em;">Chorizema</p> <p>1 Illicifolia <i>a. b.</i></p> <p>2 Henchmannii <i>a. b.</i></p> <p style="padding-left: 2em;">Dryandra</p> <p>1 Nivea <i>b.</i></p> <p>2 Formosa <i>b.</i></p> <p style="padding-left: 2em;">Epacris</p> <p>1 Grandiflora <i>a. b.</i></p> <p>2 Purpurescens <i>a. b.</i></p> <p style="padding-left: 2em;">Eutaxia <i>a. b.</i></p> <p>1 Myrtifolia</p> <p style="padding-left: 2em;">Epiphyllum</p> <p>1 Speciosa <i>b.</i></p> <p>2 Jenkinsonia <i>b.</i></p> <p style="padding-left: 2em;">Edwardsia <i>a. b.</i></p> <p>1 Grandiflora</p> | <p style="text-align: center;">Euonymus <i>a.</i></p> <p>1 Japonica variegata</p> <p>Ericas (several varieties)</p> <p style="padding-left: 2em;">Goodia <i>a. b.</i></p> <p>1 Latifolia</p> <p style="padding-left: 2em;">Hakea <i>a.</i></p> <p>1 Ceratophylla</p> <p style="padding-left: 2em;">Hovea <i>a. b.</i></p> <p>1 Celsii</p> <p style="padding-left: 2em;">Illicium <i>a. b.</i></p> <p>1 Floridanum</p> <p style="padding-left: 2em;">Melianthus</p> <p>1 Major <i>a. b.</i></p> <p style="padding-left: 2em;">Magnolia</p> <p>1 Pumilla <i>b. c.</i></p> <p style="padding-left: 2em;">Myrtus <i>a. b. c.</i></p> <p>1 Communis</p> <p style="padding-left: 2em;">Polygala</p> <p>1 Grandiflora <i>a. b.</i></p> <p style="padding-left: 2em;">Protea tomentosa <i>a.</i></p> <p style="padding-left: 2em;">Oxylobium</p> <p>1 Ellipticum <i>b.</i></p> <p style="padding-left: 2em;">Pimelea <i>a. b.</i></p> <p>1 Decussata</p> <p>2 Linioides</p> <p style="padding-left: 2em;">Leucospermum <i>a.</i></p> <p>1 Spathulatum</p> <p style="padding-left: 2em;">Platylobium</p> <p>1 Ovatum <i>a. b.</i></p> |
|--|--|



Pultenæa	Strelitzia
1 Biloba <i>a. b.</i>	1 Regina <i>a. b.</i>
Phœnocoma	Sephelocamphlus
1 Proliera <i>a. b.</i>	1 Bicolor <i>a. b.</i>
Sparmannia	Leucodendron
1 Africana <i>a. b.</i>	1 Argentea

## LIST OF CLIMBING PLANTS.

It is advisable to plant the back trellises with oranges, myrtles, and camellias, as these will thrive in a moderate shade, whilst most of the quickly growing kinds draw up weak.

Bignonia <i>a. b.</i>	Swainsonia <i>a. b.</i>
Cherii	1 Galegifolia <i>a. b.</i>
Tecoma <i>a. b.</i>	2 Albiflora <i>a. b.</i>
1 Grandiflora	Passiflora <i>a. b.</i>
Kennedia <i>b.</i>	1 Cærulea racemosa
1 Monophylla <i>b.</i>	Lonicera <i>a. c.</i>
2 Rubicunda <i>b.</i>	1 Japonica
3 Marryatti <i>a. b.</i>	Convolvulus <i>b.</i>
Maurandya <i>b.</i>	Canariensis
1 Barclayana	Dolichos
2 Semperflorens <i>b.</i>	1 Lignosa <i>b.</i>
Rhodochiton	
1 Volubile <i>a. b.</i>	

## SOILS.

It is requisite for the successful cultivation of exotics to have certain kinds of soil in the compost ground

ready for immediate use. They should be laid up one year at least, and turned over two or three times during that time. Of all soils, loam seems to be the most productive, and is in most general use. I shall enumerate two only, yellow and brown : these should be procured from old pastures, if a sheepwalk the better, and the surface or turf part only taken up, not more than two inches in thickness ; and if it will crumble when rubbed in the hand, so much the better, it being of rather an unctuous nature.

The next kind of soil in request is peat, which is the soil the common heath grows in, and is found on extensive commons.

Bog-peat soil is procured in low swampy grounds, and is below the surface ; it is composed of vegetable fibres, and requires to be much exposed to the sun and air before it is fit for use ; it is chiefly requisite for the growth of orchideous plants.

Leaf soil is that into which dead leaves are converted, that are collected together into heaps or pits and there left to decompose : this will not be proper for use under two years.

Rotten wood is that which has mouldered from decayed trees.

Bog soil is that which is found in low springy ground and also in old woods, the latter of which is the best.

Dung is also used to some extent in cultivating exotics : it ought to be good stable manure, well

fermented to make it more effectually serviceable; it should be two years old before it is made use of.

Sand is likewise a most useful kind of earth; it serves to lighten any soil that is stiff and retentive of moisture. The description fit for this purpose is the rough pit, or river sand. Cally sand is used amongst seed of the more delicate kinds, and several kinds of plants, also for striking cuttings, &c.

To understand the terms employed in the direction for mixing soils, it is to be observed that the numbers of parts mentioned is the proportion of the mixture. For example, if it is read two parts loam, it means two pecks, bushels, or loads, according to the quantity to be used, and so in proportion with the rest of the soils.

A LIST OF POTS WITH THEIR NUMBER AND THE  
SIZE OF EACH NUMBER.

No.	Inches in diameter.	Inches deep.
2 . . . . .	22 . . . . .	21
4 . . . . .	18 . . . . .	18
6 . . . . .	15 . . . . .	15
8 . . . . .	13 . . . . .	13
12 . . . . .	11 . . . . .	11
16 . . . . .	9 . . . . .	9
24 . . . . .	$7\frac{1}{2}$ . . . . .	$7\frac{1}{2}$
32 . . . . .	$6\frac{1}{2}$ . . . . .	$6\frac{1}{2}$
48 . . . . .	5 . . . . .	5
60 . . . . .	4 . . . . .	$4\frac{1}{2}$
90 . . . . .	$3\frac{1}{2}$ . . . . .	4

## PROPAGATION BY CUTTINGS.

To ensure success in this operation, it is necessary that the cuttings be plunged in a gentle bottom heat, having also a moist atmosphere in the house or frame; but once a day the moisture should be removed and a dry one substituted, for the purpose of carrying off the damp, otherwise many of the cuttings will be liable to damp off. This change of atmosphere is easily effected by giving air early in the morning to the house, or by drawing off the lights of the frames for a short time in mild days. The morning is the best time, previous to the sun coming direct upon the cuttings. The more delicate varieties of greenhouse plants will require a bell glass; also several of the sub-shrubby and shrubby stove plants, whilst the more succulent ones will succeed better without it. When glasses are used, let them be wiped with a dry cloth every day. Heaths require to be put in when the wood is firm but not ripe or hard wooded, but in such a condition that when pressed gently between the fingers they receive no injury. All cuttings should have a certain number of the lower leaves removed, which must be done with a sharp knife, and cut below the joint. Provide a number of pots filled one half with potsherds, or any other drainage; upon this lay a piece of turf, or the rough part of the soil which you use to prevent the top soil passing through. Some cuttings of a delicate kind re-

quire only cally sand, which must be made moist and firmly set in the pot. Others should have a portion of loam or leaf soil mixed with rough sand. Geraniums and calceolarias strike well in it.

As soon as the cuttings are inserted plunge the pots into water, so that the surface be covered; as soon as the air is out of the soil, which is easily known, (for as air is lighter than water, the light body ascends and in its ascension leaves the water to rise) allow the water to drain off before placing the pots in the propagating house or frame: the plants so treated will not require water for several days; indeed, I have struck several plants without ever giving them any more water to the soil, though occasional sprinklings over head are necessary. Where there is not a stove and other conveniences for propagating at hand, then the following plan will be found to answer very well: provide a box, eight inches deep, water-tight; bore several holes at each end, four inches from the top; place it near the glass; then put four inches of rough drainage, on which lay turf or rough soil, and make this firm: upon this lay your sifted soil; have a garden pot at one corner for the purpose of supplying water amongst the drainage; this causes damp vapours to rise continually, which does away with syringing over head. In this way cuttings put in on the 21st of January, 1842, were rooted on the 15th of February, with no other care than shading from the sun. When the



box is filled with cuttings, give a good watering to settle the earth, and cover the bottom of the box with water three inches deep.

When frames are used, the cuttings must be struck in dung heat: for this prepare your dung, which must be fresh, if stable dung the better; throw it up into a heap, shaking and mixing it well. When the rank vapours are passed off, which will be in about fourteen or eighteen days, proceed to make your bed; when it is four feet in thickness at the back, and three in the front, put on the frames. Lay on fresh saw-dust eight inches thick, and make it firm to prevent the steam rising too rapidly; then put on the lights. The next day you may fill the frame with cuttings, providing you give air by putting down the lights one or two inches when the heat is risen. This strong heat is very beneficial to succulent plants; but the shrubby varieties had better be put in when the heat has a little subsided. I shade at all times from the powerful rays of the sun.

#### ON HYBRIDIZING.

Hybridization is the art of producing mule plants. This process is performed by first removing the pollen from the stamina before it arrives at its greatest state of perfection, that no union may previously take place between the stamina and pistil. When the flower is at full maturity, remove the pollen from the plant with which you wish to cross

the other ; repeat this once or twice, that you may not be disappointed of seed, because it is only from experience that you will be able to judge of the effects of the pollen upon the stigma. Many cultivators are well acquainted with this process ; but as there are also more who are not versed in hybridizing, I would wish to encourage them in the pursuit by directing their attention to the benefits of it in what is effected in some of the most attractive genera of plants, for instance, camellias, rhododendrons, azaleas, geraniums, amaryllises or eppeastrums, gladioluses, &c., whose numerous varieties, now far surpassing their parents in beauty, have been obtained by the unwearied exertions of the lovers of Flora. Not any one should therefore despair of success in this delightful pursuit. Let him commence in good earnest, and time will amply repay his exertions. Flowers, fruits, and vegetables, alike present the most astonishing proofs of what can be effected by this art, and opens a vast field for the ingenuity of man. The different forms in which the sexes of plants present themselves to our view, are all contrived for one grand purpose, the preservation of the seed organs. In some plants they are inclosed in a long tube, and to effect a cross upon such plants, it requires the tube to be cut with a sharp penknife in order to remove the pollen from the mother plant, to which the pollen of the male plant should be applied with a camel-hair

brush. Of this kind is the phlox, with many others. In the salvia, a gentle pressure upon the upper surface of the flower will cause the stamens and pistil to remove out of their canopy for their impregnation. It must also be observed, that in some plants, as in the palms, the male flower is present on one plant and the female on another. In others they are both present upon the same plant, but upon different flowers, as in the cucumber ; and, lastly, they are both present on the same flower.

Observe the centre of any flower, and if its centre be perfect, then the female organ is present, which is called the pistil. This organ is provided with vessels which convey the pollen to the seed-vessel, and when it has effected this function, the flower, which is of no further use, begins to fade away, some nearly instantly, while others remain a long time. The stamina or male organs consist of one or more, never situated in the centre of the seed-vessel, but assuming quite a different character. Sometimes they are placed upon the seed-vessel, in other plants upon the petals, and in nearly all are in such a situation as that the union so necessary for reproduction, is carried on in mechanical order. But we find that when that is not the case, other means are provided by the all-wise Creator, such as insects, &c. I cannot better illustrate this than by introducing the account which Dr. Darwin, in his Note to line 395 of his

Botanic Garden, gives of the *Vallisneria*, as it has been observed in the river Rhone.

“They have their roots at the bottom of the river, the flowers of the female plant float on the surface of the water, and are furnished with an elastic spiral stalk, which extends or contracts as the water rises or falls. The flowers of the male plant are produced under water, and as soon as the fecundating farina is mature, they rise to the surface, and are wafted by the wind or borne by the current to the female flower.”

The most proper situation for plants to be placed in whilst they are in flower, for the purpose of producing mule plants, is a dry atmosphere protected by a thin net screen to prevent insects from defeating your object. If the plants are of a hardy nature, then place a single light upon four posts and surround it with canvass, if in the greenhouse, it is easy to make a partition; the same when the plants are in the stove. Observe to keep the plants moist at the roots.

The fittest season for this operation is from May to August. In selecting plants on which to produce new varieties, first consider the probability of your success and the effect to be produced when you obtain it, that is, what effect the foliage of the male parent will have upon the offspring between it and the female, and vice versâ; so also as to the flowers. When you have obtained the first remove

from the parents, continue your crosses upon the mule plants. Some florists are apt to think that the mules must all prove sterile ; but this is not the case, as it is now pretty well ascertained that the sterility of the mules, when it occurs, may in some cases arise from the difference of the parents' habits : but whatever you take in hand with respect to the art of hybridizing, do not relinquish your aim at the first defeat, but repeat your experiments, and there is little doubt but in the end you will accomplish your object. In all cases, previous to the pollen being matured, remove it from the stamens of the plant you wish to produce seed.



## JANUARY.

### CONSERVATORY.

**FIRE-HEAT.**—It is requisite for this to be kept a little stronger, so as to have a warmer atmosphere than the greenhouse. As several plants will be in flower which have been in the stove previous to their being placed in the conservatory, it will be necessary that the thermometer be allowed to rise to nearly  $50^{\circ}$  and to be kept at that height, or nearly so, during the night. Occasionally put on a fire in the morning to carry off the damp: when this is done, admit plenty of air.

**AIR.**—With respect to this, use also a little more caution than in the greenhouse; nevertheless, admit air at every opportunity.

**WATER.**—Examine the borders repeatedly, and give such as are near the pipes and flues a good watering when dry. Do not always water when the surface is dry, but examine the borders, and when you find they require water, give it sparingly, except where they are near the pipes and flues. Plants in pots will require examining every other day.



Syringe occasionally on a fine morning, and give air freely for two or three hours.

As this house is solely for pleasure, it is highly necessary that cleanliness be well attended to: therefore, remove, as soon as perceived, any plant, leaf, or dirt that would offend the eye. Nothing tends to display beauty more than to remove deformity from its side.

### GREENHOUSE.

At this season of the year, we are subject to severe frost: it is therefore necessary to guard against it by fire, in such proportion as will protect the plants from injury, and at the same time prevent them from being drawn up weakly. The thermometer should never exceed  $45^{\circ}$ ; if allowed to rise above that point for any length of time, the plants will, in the spring, present a sickly appearance. Should you find the plants touched with the frost in the morning, do not apply fire-heat, but wait until the thermometer rises to  $35^{\circ}$  or  $40^{\circ}$ , then syringe with cold spring water, and if the sun be clouded, keep the house close all the day. By following this one direction, your plants will suffer but triflingly to what they would if you had applied fire-heat.

Fire-heat applied in the day is of much advantage to plants; it dries up the superfluous moisture and carries it off in the air, instead of

forming damp vapours, which are very injurious to plants at this season.

**AIR.**—Air must be admitted in abundance at every opportunity: should a cold cutting wind blow direct upon the plants, it will then be necessary to close the house against it; but whenever the thermometer in the open air is  $35^{\circ}$ , it is safe and advisable to give the plants air, provided, as I said before, there be no cold cutting wind direct upon the plants.

**WATER.**—At this time of the year, care must be exercised in applying this element: let the plants be regularly examined, and such as require water should have no more than will moisten the earth in the pot; if they be kept from flagging, it is sufficient.

The Erica is very impatient of either extreme; if kept too wet, it will destroy the plant, and if allowed to flag, it is death to the most delicate sorts.

#### FLOWER-HOUSE.

This house is appropriated to the growth of stove plants, and to the forcing of such plants as can be brought into flower during the winter months. This house must have a pit for bark, and a cistern for water, that the water may be of the same temperature as the air in the house.

**HEAT.**—Heat, this month, must be regulated according to the state of the weather. It is opposite to nature to have the thermometer at the same degree on a rough windy night, as on one that is mild

and calm. The thermometer must be from 60° to 65°, according to the state of the weather.

AIR.—In admitting air, be cautious when the wind is cold and cutting, but give it freely on fine days, and little only when they are dull and chill.

When the weather is very cold, keep the house shut up: you may always admit air with safety when there is no sun, provided there be not any frost, nor any cold wind blowing in front of the house. Roses require all the air you can admit with safety.

Always admit air early in the morning if the sun is shining, and close early in the afternoon.

WATER.—This must be given freely to all hardy plants which are brought in to force. It must be poured on the flues early in the morning and late in the evening: it causes a steam to rise and fall upon the plants, which greatly assists the developement of the flower-buds.

Syringe every morning about nine, and every afternoon about three o'clock.

In this month this house will contain a great number of hardy plants, which must be replenished with fresh ones as they are removed in bloom into the conservatory; therefore continue to introduce roses, rhododendrons, kalmias, azaleas, ledums, Andromedas, loniceras, laburnums, Guelder roses, kerrias, the double blooming cherries, and the *Cydonia japonica*; also bulbs of various kinds. It is requisite to fork up the tan about once a month.

## PLANTS COMING INTO FLOWER.

Ammyrsine.	Kerrias.
Andromedas.	Lilacs Persian.
Azaleas.	Mahonias.
Bilbergia zeberica.	Narcissus.
Camellias.	Philadelphus.
Hardy crocuses.	Roses.
Eronthes.	Rhododendron arborea,
Hellebores.	its allies, and the hardy
Hyacinthus.	varieties of tulips.
Kalmias.	

## AMMYRSINE, ANDROMEDAS, AZALEAS.

For classification and treatment, see RHODODENDRON.

## BILBERGIA ZEBERINA.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

## BROMELIACEÆ.

Native of South America, 1820.—Propagation, seeds and suckers.

DEAR SIR,

I feel much pleasure in communicating to you the mode of culture adopted by me on the above plant. In February, I sowed seeds and placed them near the glass in a pine stove; they vegetated in a short time. I left them in the seed pot about one month; I then potted them into No. 60 pots, placed them near the glass as above, where they grew with rapidity. I continued to shift them into the next size

until they were in No. 12, at which shifting I plunged them into the pine pit, and from this time they received the same quantity of water as the pines: in one year from the last shifting they produced flowers, and were in great beauty in the winter. Suckers are produced in abundance; and the same treatment as for seed is requisite, that is, to shift as the plant fills its pot with roots, and when it receives its last shifting, then plunge it into the bark bed and treat as above. The soil in which I sowed the seed, was light vegetable soil, and for shifting, good brown loam, decomposed dung, with a little sand to keep it porous. I remain,

Dear Sir, yours respectfully,

Denton Gardens,  
Grantham, Lincolnshire,  
25th March, 1841.

J. DALBY.

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### CAMELLIA.

*Class* MONADELPHIA.      *Order*, POLYANDRIA.

### CAMELLIÆ.

Native of China, Nepaul, Japan, 1773.—Propagation, cuttings, inarching, seed.

It is by hybridizing that so many of these beautiful shrubs have of late been added to our collections: a more lovely shrub is not easily to be found. Its bright shining foliage alone would render it deserving attention, but when to this are added its beautiful flowers of various bright colours, it becomes an object of attraction to every beholder.



To have the camellia in its greatest beauty this month, the following mode of treatment should be adopted.

When the plants are not required to blossom early, they may be kept in a greenhouse, otherwise in the beginning of April they should be removed into a heat of  $55^{\circ}$  or  $60^{\circ}$ , where they should remain until October; then they should be removed back into the greenhouse until they begin to flower, which some will do in December. They may then be placed in the conservatory until April, by which time they will have done flowering for the season; then move them back into heat as before: at the latter end of May, turn one or two out of the pots, and examine the roots, if they have struck afresh, (which will easily be known by the appearance of young white fibres.) Repot the plants immediately. This is the time to give them their proper food.

I have used various soils for this purpose, but I consider the following to be the best for producing growth and bloom: four parts yellow loam, one ditto horse droppings, one ditto peat soil, one ditto sand; mix them together at least six months before using, and turn the compost over several times, this airs and mellows it: do not sift it, but let it be as rough as convenient. For shifting, have a number of pots ready drained, one inch deep with rough gravel, broken pots, or any other open drainage; upon this put the roughest of your soil, one inch



thick; turn out the plant, give it a gentle shake with the hand to remove a part of the old soil from the roots; if these be matted, take a sharp-pointed stick and set at liberty the matted roots; take away from one to two inches of soil from the ball all around, then put your plant in a pot about four inches wider than the ball; this leaves two inches between it and the pot; press down the soil gently with a lath all round the ball, but not too much. If any plant be in a sickly state, shake all the soil from its roots, and repot it in a small pot.

In watering the camellia, it is necessary to be cautious against too much wet. This will be the case if you are always giving them a little water when the surface is rather dry: to be safe, examine the plants, and if they are dry give a good watering. The camellia is much benefited with syringing the foliage, particularly whilst in heat.

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### CROCUS.

*Class*, TRIANDRIA.

*Order*, MONOGYNIA.

### IRIDEÆ.

Treatment, same as HYACINTHUS. (p. 24.)

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### MUSACEÆ.

*Class*, PENTANDRIA.

*Order*, DIGYNIA.

1. Cape of Good Hope, 1773.—*Strelitzia Reginae*.  
—Propagation, suckers.—Flowers yellow, purple beneath.

2. Cape of Good Hope, 1778.—*Str. Augustifolia*, May, June.—Flowers yellow.

These beautiful plants are of easy culture, and when grown and flowered will possess great attraction.

SOIL.—I pot my plants in equal parts of loam, peat, and decomposed horse droppings, to which I add a little rough sand.

WATER.—Give a good supply when the plants are in the stove, but only a little when dormant.

I introduce them into the flower-house in June, where they remain until they flower, which they do in January, when they are removed into the conservatory, and they remain there until June, at which time I repot them, removing a part of the old soil, and taking care not to damage the roots. I give a good draining by inverting a small pot over the hole of that which I intend for the plant, and filling up to it with potsherds. By the above treatment they flower freely.

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ERANTHES HYEMALIS.—HELLEBORUS NIGER.

*Class*, POLYANDRIA.

*Order*, POLYGYNIA.

RANUNCULACEÆ.

Native of Italy, 1596.—Propagation, offsets.

If planted in pots and allowed to stand in frames in the winter, will produce their flowers at this season of the year.

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## HYACINTHUS.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

ASPHODELEÆ.

Native of the Levant, 1596.—Propagation, offsets.

Pot the bulbs in September, in Nos. 32 and 48, in the following compost: two parts vegetable soil, two parts good turfy loam, one part decomposed cow-dung, one part sand; put a little sand beneath the bulb, and a little above it, fill up with the soil. Place the pots in any convenient situation, cover all up with sand one inch thick on the top of them; take as many as you wish for the first bloom into the flower-house in October, and others as they are wanted for succession, every three weeks or thereabouts.

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NARCISSUS.
*Class*, HEXANDRIA.*Order*, MONOGYNIA.

AMARYLLIDEÆ.

Natives chiefly of Europe, several of England.—Propagation, seeds and offsets.

Treatment, same as the HYACINTHUS.

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TULIPS.
*Class*, HEXANDRIA.*Order*, MONOGYNIA.

TULIPACEÆ.

Native of Levant.

The double and single Van Thol and the Parrot

tulips force well, if treated as the hyacinthus, but the later blowing varieties must not be placed in the flower-house until January.

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### CROCUS.

*Class*, TRIANDRIA.    *Order*, MONOGYNIA.

#### IRIDEÆ.

This little favourite forces well, if treated as the HYACINTHUS.

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### PHILADELPHUS.

VARIETIES OF THE SYRINGA.

*Class*, ICOSANDRIA.    *Order*, MONOGYNIA.

#### PHILADELPHEÆ.

Native of Europe.—Propagation, suckers.

This shrub forces early, and is brought into bloom with little care. In the spring, plant a number of suckers in the open ground. After they have stood two years, lift and pot them in the month of March or April, to be ready for forcing. Put them into pots proportionable to the size of the plants, and plunge the pots up to the rim in the kitchen garden; water them in dry weather during the summer months. In October remove as many as you wish for early bloom into the flower-house, and introduce others for succession as required; when done flowering, turn the plants out of the pots, part them and plant them in the kitchen garden, where let them remain one year to recover before forcing again.

## KALMIA, LATIFOLIA, ETC.

North America, 1734.

See RHODODENDRON.

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## KERRIA JAPONICA.—THE CORCHORUS.

*Class*, ICOSANDRIA.                      *Order*, POLYGYNIA.

ROSACEÆ.

Native of Japan, 1700.—Propagation, suckers.

Suckers planted out in March, will in March following be ready for potting, at which time they must be cut down close to the ground, as it is the young wood which produces the flowers. Placed in the flower-house in October, they will be in flower at Christmas; and for succession, it is only requisite to introduce them into the house every fortnight or three weeks.

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## ROSA.

*Class*, ICOSANDRIA.                      *Order*, POLYGYNIA.

ROSACEÆ.

Propagation, seeds, grafting, budding, layers, and cuttings.

The moss, Provins, Dumas, and crimson perpetual, force well, if the plants are strong and healthful. It is requisite to the successful forcing of roses, that a quantity of fine young plants be potted every spring and plunged in an open space in the kitchen garden; they should be kept well



supplied with water during dry weather, and the buds which form for flowering be pinched off as soon as they appear. At the latter end of August, pinch the head out of each shoot, this strengthens the shoot and nourishes the buds intended to produce blooming shoots. In October prune them, and remove as many as are wanted early into the flower-house. Place them on the tan, as near to the glass as possible; keep the plants moist with syringing them. When they have done blooming, if convenient, put them in the greenhouse, watering them only when very dry: this ripens the young wood, and if placed close under a north wall from May to August, the pots laid on their sides to keep out the wet, they will bloom well the following year. In August set the pots upright and give a good watering; nothing more will be necessary until October, when proceed as directed with young plants.

SOIL.—Two parts good loam, one part dung, with a little rough sand.

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### RHODODENDRON.

*Class*, DECANDRIA.

*Order*, MONOGYNIA.

ERICEÆ.

Native country, North America, Siberia, Switzerland, and Lapland; the Arboreum is from Nepaul.  
—Propagation, seeds, layers, inarching.

The greenhouse varieties of this beautiful shrub



are brought into flower this month by the following treatment. In April, shift the plants into bog-soil; if you wish to have very large plants, give them pots of a sufficient size for their growth; if you keep them within limited bounds, then only reduce the ball, and replant in the same pot: after this repotting, the plants are to be placed in a heat of about  $55^{\circ}$ , where they must remain until the blossoms begin to unfold, which will be at the latter end of December. Give them a little more water than you give the camellias. They may be removed again in April into heat as before.

These plants will flower equally as well in the greenhouse, only not so early.

The hardy varieties, if planted in bog soil, and watered well in May and June when the weather is dry, will be greatly assisted in setting their bloom. Go over these in October, and such plants as you find to have good firm buds, pot, and after giving them a plentiful watering, place them in the flower-house, they will blossom this month.

The treatment here laid down for the common rhododendron will apply to the following plants, all of which belong to the same order. Azaleas, kalmias glauca and rubra, (latifolia will flower in March, if placed in the flower-house in October,) ledum, Andromeda, ammyrsine. Erica carnea, taken into the greenhouse in October will flower this month.

For successional bloom, place plants in the flower-house once a fortnight or three weeks. It is necessary to take a succession of plants into the flower-house only when a succession of bloom is required to be kept up.

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### CYDONIA JAPONICA.

*Class*, ISOCANDRIA.      *Order*, DIPENTAGYNIA.

POMACEÆ.

Japan, 1815.—Propagation, layers.

A dwarf shrub, forces well when established in pots. If placed in the flower-house in January, it will bloom in a short time. It requires a season of rest, therefore must only be forced every other year. Prune out any of the weak straggling shoots, and shorten others as you see occasion for it.

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### MAHONIA.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

BERBERIDÆÆ.

Native of North America.—Propagation, seeds and suckers.

Treated as the hardy rhododendron, will flower this month, with this exception, it must be placed close under the glass in the flower-house, giving an abundance of water.

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## SYRINGA VULGARIS ET PERSICA.—THE LILAC.

*Class, DIANDRIA.**Order, MONOGYNIA.*

OLEINÆ.

Native of Persia.—Propagation, suckers.

The above shrubs force well, if planted out in good garden soil, and potted as wanted. I like a few standards; they are easily introduced amongst the plants, and have a fine effect when in flower: I prune the heads to keep them within due bounds. After being forced, turn them out of their pots, and give them one year's rest, when they may be forced again.

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## FEBRUARY.

## CONSERVATORY.

The directions given in January for heat, air, and water, will be sufficient for this month.

The green fly is a very troublesome insect, if left to multiply, without checking it. The most effectual remedy is to fumigate with leaf tobacco, filling the house with its fumes, so that a person holding a candle could not be perceived at two yards' distance. In the morning, give a good syringing to dislodge the dead insects, and let in abundance of air.

Previously to fumigating the house, remove any delicate heaths or other tender plants in bloom.

The general appearance of the house will be improved by top-dressing the borders. The plants

in pots, and tubs, oranges also, require a top-dressing of sheep's dung ; it is of much service to them by giving the plants fresh supply of nourishment.

Replace those plants which have done flowering, with others in bloom.

### GREENHOUSE.

Heat, air, and water as last month. In this month it is necessary to shift a very great number of plants, and to pot off such cuttings as have stood all winter in store pots. About the middle of the month commence a general shifting of geraniums, calceolarias, verbenas, heliotropes, and several other herbaceous and sub-shrubby plants which you may observe to require it. It is also time to put in the spring cuttings ; for which, see directions for striking cuttings, Page 8.

### FLOWER-HOUSE.

Heat, air, and water as last month. Early this month, it will be proper to fork up the tan two feet deep ; this operation raises a fresh heat, and gives a clean appearance to the house. Continue to replace the plants removed in flower with fresh ones. Pinks may be introduced about the middle of the month, placing them on a shelf near the glass.

Fumigate to destroy the green fly, if not already done.

The red spider is another troublesome insect ;

but it is easily kept down with the alkaline extract : I have used it on the most delicate stove plants without the least injury to them, and have always found it certain destruction to the spider. When the extract is applied to any plants, air should be given in abundance for the following day or two.

See the advertisement accompanying this work, for the particulars of the ALKALINE EXTRACT.

A LIST OF THE PLANTS COMING INTO FLOWER.

Anisanthus cunonia.	Laburnum.
Cineraria, varieties of.	Lachenalia, varieties of.
Daphne odora.	Primula prænitens.
Dianthus arboreus.	Sparaxis, varieties of.
Deutzea scabea.	Trichonema bulbocodium.
Gladiolus, varieties of.	
Ixias, varieties of.	Tritonia euvaria.

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ANISANTHUS CUNONIA.

Treatment, see IXIAS.

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CINERARIA.

*Class*, SYNGENESIA.      *Order*, SUPERFLUA.

COMPOSITÆ.

Propagation, seeds, cuttings, suckers.

This genus is deserving a place in every conservatory on account of its showy flowers. It has lately been much improved by the persevering hybridizer, and is still progressing. It is common to every quarter of the globe.



The genus is sub-shrubby in its character, with herbaceous varieties. The King and Bicolor are varieties of the former, and the Princess Royal, and Waterhousiana, of the latter. When it is desirable to have a succession of bloom from August till May, it will be requisite to strike cuttings in July and again in February: those planted in July must be potted as soon as struck, at which time the herbaceous varieties must be parted and potted off into No. 60 pots, in which let them remain until February; then shift them into the next size as they fill their pots with roots, and continue so shifting them until they are in the size in which they are to bloom. If your object is to obtain fine strong plants, then some of the strongest of them will require No. 12 size pots. When they are established in the pots in which they are to bloom, water with dung water twice a-week: they will commence blooming in August. Those you wish to blossom in November, December, and January, must have the flower stems cut out as they appear, until October.

The plants which are to supply bloom from February to May, must be struck in February, and shifted as they fill the pots with roots until they are in the pots in which they are to bloom; then water with dung water as above. Remove the flowers as they appear, until January; then allow them to form their buds for blooming. Their



situation when in the greenhouse must be as near the glass as possible.

**WATER.**—They require to be kept rather moist at all seasons, and to be abundantly watered when blooming, if the plants are in good health, otherwise be cautious of too much water.

**SOIL.**—Equal parts of brown loam, leaf soil, and dung, with about one-fourth rough sand. The delicate varieties do better with cally sand.

#### LIST OF CINERARIA.

- |                     |                 |
|---------------------|-----------------|
| 1. Prince of Wales. | 5. Magnet.      |
| 2. Splendida.       | 6. Unique.      |
| 3. Madonna.         | 7. Hendersonia. |
| 4. Grandiflora.     |                 |
- 

#### IPOMŒA LEARII.

##### CONVOLVULACEÆ.

This is a plant of great beauty ; the flowers on their first expansion are of a beautiful blue colour, which are produced in great profusion.

It delights in a strong heat, but it will grow and flower in a heat of 55°.

I grow it in pots and train it over trellises, which it quickly covers : train in about six shoots to each plant ; cut all the lateral ones away : these will continue growing and blooming without producing that confusion as when all the shoots and laterals are retained.

**PROPAGATION.**—They strike freely from cuttings, which ought to be struck early in summer, and kept in small pots during winter in the greenhouse. Early in spring pot them into large pots, and fix the trellises in them; remove the plants so potted into the flower-house, or put them into an early forcing vinery: pot others in May to come in succession.

**SOIL.**—They delight in equal quantities of dung and loam.

**WATER.**—Give but little water during winter, but when in a vigorous growing state give an abundance, and, when well established in the large pots, water with dung water once a week.

### DAPHNE ODORA.

*Class,* OCTANDRIA.

*Order,* MONOGYNIA.

#### THYMELEÆ.

Native of China, 1771.—Propagation, cuttings.

This delightfully scented flowering shrub, if kept in the greenhouse during the summer months, will blossom in abundance this month. Shift it in April into larger pots; reduce the ball a little, and set the matted roots at liberty.

**SOIL,** the same as for the CAMELLIA.

## DENTZEA SCABRA.

## PHILADELPHEÆ.

Native of Japan.—Propagation, cuttings, suckers.

This beautiful shrub forces well. Place it in the flower-house in December, and it will bloom this month. It grows well in common garden soil.

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## DIANTHUS ARBOREUS.

*Class*, DECANDRIA.                      *Order*, DIGYNIA.

## CARYOPHYLLÆ.

Native of Greece, 1820.—Propagation, layers, and pipings.

If potted in loam, leaf and vegetable soil, and treated as a common greenhouse plant, it will flower this month.

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IXIA, VARIETIES OF; SPARAXIS, VARIETIES OF; TRITONIA, EUVARIA, GLADIOLUS RECURVUS, UNDULATUS, CARNEA, ANISANTHUS CUNONIA, TRICHONEMA BULBOCADIMUM.

*Class*, TRIANDRIA.                      *Order*, MONOGYNIA.

## IXIDEÆ.

Natives chiefly of Cape of Good Hope; first introduced 1757.

These beautiful bulbs will flower this month with the following treatment:—

Early in August, pot your bulbs in Nos. 60 and 48 size pots, according to their strength, using as

compost, loam, leaf mould, and peat, equal parts, with about one-sixth part caly sand. As soon as they are potted, place them in a cold frame, protecting them from heavy rains during the night. Let them remain there until November; then remove them into the greenhouse; place them on a shelf near the glass; give them a good supply of water whilst in a growing state. Remove them into the conservatory, as they show bloom: as soon as the herbage begins to decay, withhold water by degrees. When the leaves are decayed, remove them into a shed until August.

The same treatment is suitable for the *LACHENALIA* and *OXALIS*.

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### LABURNUM—CYTISUS.

*Class*, MONADELPHIA.      *Order*, DECANDRIA.

### LEGUMINOSÆ.

Native of Britain.—Propagation, seeds, inarching, and budding.

This is a beautiful dwarf tree, which forces well when not introduced into heat too early; the second or third week in December is as early as it will force. Trees for this purpose may be had of the nurserymen, who always have a stock on hand for forcing. They should be on single stems, something similar to standard roses. In this form they present a very pleasing contrast in this and the following months, if introduced for succession

once a fortnight into the flower-house. Potting should be performed as soon as the leaf is fallen, that they may be the better established in the pots. They will be ready for forcing when they have had one summer's growth. Those which are forced one winter, must be allowed to rest the ensuing winter to recover. It is requisite to prune them by cutting away the weakest shoots, and shortening the luxuriant ones, this causes them to produce short spurs; it should be done as soon as they have ceased flowering, to enable them to bloom the next winter.

In potting, use strong rich garden soil.

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LACHENALIA—PENDULA, TRICOLOR, QUADRICOLOR.

*Class*, HEXANDRIA.                      *Order*, MONOGYNIA.

ASPHODELEÆ.

Native of Cape of Good Hope.—Propagation, offsets.

Treatment, see IXIA.

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OXALIS—PURPUREA, LUTEA, BOWII, VERSICOLOR.

*Class*, DECANDRIA.                      *Order*, PENTAGYNIA.

OXALIDEÆ.

Native of Cape of Good Hope.—Propagation, offsets.

Treatment, see IXIA.



## PRIMULA—PRÆNITENS, FLORA ALBA.

## PRIMULACEÆ.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

Native of China, 1820.—Propagation, seeds and division.

This charming plant requires to be raised from seed, which should be sown in March. The young plants should be potted into thumb pots as soon as they will admit of removal, and shifted during the summer months until they are sufficiently grown for No. 24. The soil adapted for them is leaf mould and loam of equal proportions: they will flower in the autumn; but those which you wish to blossom in this and the following spring months, you must keep back by pinching off the flower stems as they appear: by this process an abundance of bloom will be produced at this season of the year.

If planted out in a bed in the flower-garden, they have a beautiful appearance, and are very ornamental in the autumnal months.

## VIBURNUM, OPULIS.—THE GUELDER ROSE.

*Class*, PENTANDRIA.*Order*, TRIGYNIA.

## CAPRIFOLIACEÆ.

Native of Britain.—Propagation, suckers.

Treatment, see SYRINGA, except that the time of placing in heat must be in December.



## INGA HARRISII.

*Class*, POLYGAMIA.*Order*, MONÆCIA.

LEGUMINOSÆ.

The genus is very extensive, but this is a recently introduced species, being first known in 1837 in this country. The temperature in which this genus flourishes is various: in its dormant state it requires from  $40^{\circ}$  to  $60^{\circ}$ ; but it should never when at rest be in a lower or higher one. When in a growing state, from  $60^{\circ}$  to  $100^{\circ}$  is the minimum and maximum, allowing them air according to the season. When growing, they do much better if syringed.

They strike very freely from cuttings of the half ripened wood; the best time for taking which is from March to June: when rooted, pot them into small 60 pots, and place them in a gentle bottom heat; as soon as they have filled their pots with roots, shift into large 60, and replace them as before; shift again, as soon as these pots are filled with roots, into No. 48, and place them in the stove where they can be shaded from the sun: in this situation let them remain until they have struck fresh roots, when they must be brought forward, and inured by degrees to the sun's rays. They should never be allowed to get pot-bound, as that is detrimental to their flowering freely.

The best compost for this species is very light turfy loam, leaf soil, and decomposed dung, of

equal quantities, with the addition of a portion of rough sand.

P. N. DON.

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## MARCH.

### CONSERVATORY.

Continue fire-heat during the evening, though there be no frost, otherwise the plants removed from the flower-house will suffer. Admit air freely on fine days.

Water will be more in demand than last month. Look carefully over the plants every other day, and give a good watering.

Syringe as often as you can when the mornings are fine, taking care that no wet falls on the blossoms, as it causes early decay. Remove all plants in pots as soon as they have done flowering, and replace them with fresh ones.

It is advisable, about once a month, to vary the effect of the conservatory by removing the plants, and arranging them in a situation different from that they before presented; the well known truth that variety is pleasing, being as applicable in this arrangement of the conservatory as in any other case. Such a disposition of the plants may be made by placing, at one time, all those of one colour in one group, and at another time, so placing them as to form a mixed group.

## GREENHOUSE.

HEAT.—Every gardener must be guided by the weather. If it be frosty keep as much fire-heat as will secure the plants from being injured ; but on mild nights do not put on the fire. It will be necessary to observe the appearance of the evening as it advances, for it frequently happens that at sunset it is even warm for the season, without the least indication of frost, and this mildness of the atmosphere will continue until nine or even ten o'clock, when a change will take place, and a very sharp frost succeed. In sudden changes like this, there would be great risk of damage to the plants, unless the weather be watched and timely precaution taken against such unexpected contingencies.

All plants requiring to be shifted last month, if neglected, must be attended to as early as possible in the present one. Geraniums and other plants which are now growing freely should have a good supply of water ; they should not be kept continually wet, but be suffered to remain until they require watering, and then it should be afforded plentifully. Cut or pinch off the lateral shoots on the geranium flower stems. See GERANIUM.

Syringe on fine mornings, and occasionally put on a fire to carry off the damp.

AIR.—Admit as much as possible during the day, but shut up close during the evening.

## FLOWER-HOUSE.

HEAT.—Keep the thermometer about 65° during the evening, and on cold windy days.

AIR.—Admit freely on fine days, giving it early in the morning, and closing the house early in the evening.

Water freely all plants which are in a vigorous growing state, using dung water occasionally to such as require this stimulant, as cannas, hedychium, Thunbergias, cactus, musa, strelitzias, alpinias, vincas, &c., &c.

Continue to syringe every morning and evening, and to pour water on the flues the first thing in the morning and the last in the evening.

Introduce such bulbs and shrubs as are required for succession, and now bring in the hydrangea, if it is intended for blooming in May.

I have not thought it necessary to give a repetition of the bulbs and shrubs, because all that will force into flower in the two preceding months will do so in this and the succeeding ones until they blossom in the open air.

## LIST OF PLANTS COMING INTO BLOOM THIS MONTH.

Arctotis grandiflora.	Echium fastuosum.
Azalea Indica, with its varieties.	Gazania pavonia.
Celsia cretica.	Genista Canariensis.
Coronella glauca.	Spigelia Marylandica.

## ARCTOTIS GRANDIFLORA, YELLOW.

*Class*, SYNGENESIA.      *Order*, NECESSARIA.

COMPOSITÆ.

Native of Cape of Good Hope, 1794.—Propagation, cuttings.

Grows well in loam, peat, and bog-soil. Pot in May.

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## AZALEA INDICA, WITH ITS VARIETIES.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

ERICÆ.

Native of China, 1808.—Propagation, seeds and cuttings.

This is one of the many productions of that highly favoured clime, China, which are so deservedly objects of the gardener's particular care. The azalea grows and flowers well in equal parts of peat and bog-soil, with about one-eighth part of cally sand. Re-pot in May, taking care to drain the pot well, and to give a moderate shift when re-potting. Set the matted roots at liberty, and remove a portion of the old soil. Keep the plants in the greenhouse all the year: do not suffer them to flag for want of water. Should any plants appear sickly, shake as much of the mould from the roots as will permit it to go into a small pot, in which let it remain until it has recovered, then give a moderate shift when the pot is filled with roots. If required to bloom in February, place them in a



gentle heat, and they will flower without injuring them.

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CELSIA CRETICA, YELLOW.

*Class, DIDYNAMIA. Order, ANGIOSPERMA.*

SOLANÆÆ.

Native of Crete, 1753.—Propagation, seeds and divisions.

The seeds should be sown in March in heat, and when the young plants are sufficiently large they should be transplanted into small pots, and shifted as they fill them with roots until they are in No. 16, in which they should remain. The only care then is to treat them as other greenhouse plants. Give them plenty of water while in a growing state.

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CORONELLA GLAUCA, YELLOW.

*Class, DIADELPHIA. Order, DECANDRIA.*

LEGUMINOSÆ.

Native of France, 1722.—Propagation, cuttings.

If potted in May, using the following kind of soil, it will bloom abundantly. Yellow loam, old rotten dung, and common garden soil, in equal parts, with a little rough sand.

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## ECHIUM FASTUOSUM, BLUE.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

BORAGINEÆ.

Native of the Cape of Good Hope, 1759.—  
Propagation, seeds and cuttings.

This is a most charming early flowering shrub. Its chief beauty is in its fine noble spike of flowers, differing from plants in blossom at this season of the year. Pot into large pots as soon as they have done blooming, in strong rich soil. Keep up a succession of young plants, and throw the old ones away.

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## GAZANIA PAVONIA, YELLOW, DARK CENTRE.

*Class*, SYNGENESIA POLYGAMIA. *Order*, FRUSTRANEA.

COMPOSITÆ.

Native of Cape of Good Hope, 1804.—Propagation, cuttings.

A delightful little greenhouse plant of easy culture. It requires to be grown in bog, with a little loam and cally sand, and to be kept near the glass.

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## GENISTA CANARIENSIS, YELLOW.

*Class*, MONADELPHIA.      *Order*, DECANDRIA.

LEGUMINOSÆ.

Native of the Canaries, 1812.—Propagation, seeds and cuttings.

Requires the same treatment as the CORONELLA.

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## SPIGELIA MARYLANDICA, SCARLET.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

## GENTIANÆ.

Native of N. America, 1694.—Propagation, division.

This is a delightful little plant; it grows well in peat and bog, with a proportion of cally sand. As soon as the foliage indicates decay, gradually suspend watering: when the foliage is decayed, place the pots in any shady situation, laying them on their sides to keep out the heavy rain; let them remain in this state until August, when shake out all the mould from the roots and pot as above.

## CYPERUS ALTERNIFOLIUS.

*Class*, TRIANDRIA.*Order*, MONOGYNIA.

## CYPERACEÆ.

Madagascar, 1781.—Propagation, suckers.

A stove plant: its chief recommendation is its singular appearance. It produces a curious contrast to the surrounding plants, and when mixed in a group adds greatly to the effect of it. It is of easy culture, requiring rich soil and plenty of water.

## APHELEXIS HUMILIS. (MARCH TO AUG.)

*Class*, SYNGENESIA. *Order*, SUPERFLUA.

## COMPOSITÆ.

Cape of Good Hope, 1810.—Propagation, cuttings.

A greenhouse plant of much beauty in its foliage and flower, and when grown to perfection is a fine contrast to the foliage of surrounding plants.

SOIL.—Sandy fibrous peat, exposed to the air some time previous to using it: if not thus purified by the air and sun, you will fail of success in the cultivation of this plant, for it is absurd to expect to grow fine delicate plants in soil containing impure vapours. The *aphelexis* will require to be placed in a situation which will admit of its having the benefit of a free circulation of air, and as much of the sun's rays as possible. Let it remain in the greenhouse all the year if you are not provided with a canvass screen to throw over such species of plants in heavy rains.

Give a good drainage, and do not give excess of water, nor yet allow the plant to flag.

It is propagated from cuttings inserted in peat and cally sand of equal quantities, and placed in a gentle bottom heat without a bell glass, as they are very apt to damp off.

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## APRIL.

### CONSERVATORY.

HEAT.—Keep but little fire during the night in mild weather; occasionally put on a fire in the morning to dry up the damp.

AIR.—Admit as much as you can when fine; if

the weather be cold admit but little, and close up early in the evening.

**WATER.**—Examine the borders: if dry, give a good watering on fine mornings; if any of them be soddened, remove as much of the old soil as you can without injuring the roots of the plants, fill up with fresh compost. It is also necessary to take away part of the top soil generally and renew it with fresh: this will be of much service to the plants if done without cutting any of the roots.

The climbing plants will now require pruning and thinning. The passifloras may be now cut back to the old stem, leaving any shoots you may wish to preserve. The lateral ones should be cut to within half an inch of the stem: this causes strong blooming shoots to put out from the spur, which will commence flowering in August, and continue during the winter months. Maurandias must be cut in a similar manner; other climbers will need thinning only. Go over all the plants and prune out all weak shoots; for when they are left they only tend to weaken the plants, whilst they are of no service.

#### GREENHOUSE.

**FIRE.**—But very little heat will suffice at this season of the year, but when the weather is frosty put on a little fire. Put on a little fire occasionally

during the day, to dry up the damp occasioned by watering the plants.

AIR.—As much as possible should be admitted on mild days, and if the weather be very mild towards the latter end of the month, leave on a little during the night.

WATER.—Daily attention should be paid to this: the geraniums, calceolarias, and other herbaceous plants coming into bloom should be occasionally watered with dung water.

Syringe every other day, if the weather be warm with plenty of sunshine. Remove as many plants as you can out of the house, and put them into cold frames, covering them up at night if there is appearance of frost: by the additional room thus obtained, the remaining plants have a better chance of making fine specimens. It is advisable to elevate a certain number of plants a little, by placing inverted pots upon the stage and setting those with the plants upon them: by this arrangement a more free circulation of air will pass round each individual plant.

#### FLOWER-HOUSE.

HEAT.—Continue as much fire as will keep the thermometer about 65° during the night.

AIR.—Admit more freely this month. Close the house on sunny days when the thermometer is about 80°, then syringe it. Daily syringing should



be attended to early in the morning and about three o'clock in the afternoon. In the evening pour water on the flues to create steam.

This is a busy month: many plants which have been dormant require repotting early in the month. Remove the bulbs and shrubs which are still in the house as they come into bloom.

Give plenty of water to all vigorously growing plants, but do not sodden the soil.

LIST OF PLANTS COMING INTO BLOOM.

Agapanthus umbellatus.	sōnii, speciosum, and
Aloe and its varieties.	several others.
Amaryllis Johnsonii,	Gastrolobium bilobum.
vittata.	Gompholobium grandi-
Strumaria undulata.	florum.
Carmichaelia Australis.	Heliotropium.
Cereus speciosissimus.	Hydrangea hortensis.
Crinum erubescens.	Jasminum Sambac,
Cyclamen coum, Persi-	grandiflora.
cum.	Lobelia crinus, bicolor,
Cypripedium calceolus.	and several others of
Dianthus.	similar habits.
Edwardsia grandiflora.	Yucca superbum and its
Epiphyllum Jenkin-	allies.

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## AGAPANTHUS UMBELLATUS, BLUE.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

## HEMEROCALLIDÆ.

Native of the Cape of Good Hope, 1692.—Propagation, seeds, division.

As soon as the plants have done blooming, select a number of the oldest of them and detach the suckers, which pot singly into No. 16 size pots: when this is done, give them a good watering and place them in the flower-house, where they must remain until they bloom; this will be in the following spring, if they are potted in May. As soon as they have done blooming, shift them into No. 8 pots, and replace them in the flower-house until June, when they may be put out into the open air, to remain till October; at which time remove them into the greenhouse, and finally, in January, into the flower-house. They will bloom in April. Those which are intended to be brought into flower in January must be placed in the flower-house in October. For succession, pot a certain number every spring, and plant the old stocks out in a warm situation in the open borders, or throw them away. Plants of two or three years old bloom better than older plants.

SOIL.—Two parts loam, one good decomposed dung, to which add a little rough sand.

WATER.—Give in abundance when the plants

are in the flower-house, occasionally using dung water. They will not require so much while they are in the open air and the greenhouse, that time being their season of rest.

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### ALOE AND ITS VARIETIES.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

#### HEMEROCALLIDÆ.

Native chiefly of the Cape of Good Hope.—  
Propagation, suckers and the leaves.

There is a great number of this curious genus worthy of a place in collections. They succeed well in two parts loam, one dung, with a little rough sand.

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### AMARYLLIS JOHNSONII, VITTATA, ETC.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

#### AMARYLLIDÆ.

Native of Cape of Good Hope.—Propagation, seeds, offsets.

To enumerate all the fine species of this extensive genus would be foreign to a small work like this. I have, however, selected two well known species, Johnsonii and Vittata: the treatment given for these is suitable for most others of this genus.

This interesting tribe of plants is of easy culture, and under judicious management will furnish

specimens in bloom at any season of the year. Presuming that you have strong flowering bulbs, and that you wish to have them in bloom in every month of the year, it is requisite to place them in the flowerhouse every month, removing them successively, as they perfect their foliage, into the greenhouse, where they are to remain in their pots for six months, when they must be taken down, and as much of the old soil removed from the top as can be done without injuring the fleshy roots; then give a good watering and replenish with fresh soil.

Mr. Sweet recommends turning them out of their pots, and laying them upon shelves in the greenhouse. As soon as the bulbs have done flowering, I take part of the old soil from the roots, and repot in pots proportionate to the size of the bulbs. I then place them in the flowerhouse until the foliage is perfectly ripe.

SOIL.—Two parts strong loam, one part very rotten dung, with about one-sixth of rough sand.

WATER.—When they are placed in the flowerhouse they require a large supply, particularly when shewing bloom; it should, however, be gradually diminished as the foliage decays.

The strongest bulbs require no water when they are in the greenhouse; but the weakest plants must have a moderate supply once a month, in order to prevent them from shrivelling up.

To increase the strength of the foliage is of the utmost importance ; therefore, when in the flower-house, place them near the glass, that they may have the benefit of light. In order to increase the bulbs you should plant them very deep in the pots : this causes them to produce offsets, but the bulb always is weakened by it.

To have them in bloom this month, they must be put in the flower-house in February. There is a little difference in the time of blooming. They have blossomed with me about the middle of September when they were introduced into the flower-house early in August, whilst others, brought in at the same time, have flowered in the second week of October.

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CARMICHAELIA AUSTRALIS.

*Class*, DECANDRIA.

*Order*, MONOGYNIA.

LEGUMINOSÆ.

Native of New Holland.—Propagation, seed, cuttings.

This curious flowering pendent shrub is worthy a place in every collection : its character, as to its blooming, is similar to that of the epiphyllum. For its treatment see EDWARDSIA.

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## CEREUS SPECIOSISSIMUS.

*Class, ICOSANDRIA.**Order, MONOGYNIA.*

## OPUNTIACEÆ.

Native of S. America, 1816. — Propagation, seeds and cuttings.

SIR,

According to your request, I send you my method of treating the above plant, which is one of the finest specimens I have as yet seen. I have treated it as under for three years, and the plant has produced about one hundred blooms each year during that time. As soon as the flowering season is over, I repot and place the plant against a south wall, where it remains until September. Whilst in this situation I water it with dung water, and when removed into the greenhouse, I withhold water until the beginning of March, when I give a good watering. At this season of the year several young shoots begin to put forth: these I remove from the main stem as they appear; this throws strength into the remaining shoots, and causes the flower to be fine. I train in six shoots, and keep to that number, taking care at all times to keep them free from laterals, and lastly to retain the old stems.

SOIL.—Maiden loam, well decomposed dung, peat, and rough sand, to which add a portion of lime craps.

DRAINAGE.—I cover the bottom of the pots about two inches thick with lime craps.

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CRINUM ERUBESCENS, AMERICANUM, AND  
LONGIFLORUM.*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

AMARYLLIDEE.

Erubescens, native of W. Indies, 1789 ; Americanum, of S. America, 1752 ; Longiflorum, of Cape of Good Hope, 1816.—Propagation, division.

As soon as the plants have ceased flowering, such as you are desirous of increasing turn out of the pots, and remove the suckers. Be careful of the roots of the parent plant. Put the suckers in No. 16 size pots, in two parts loam and one part dung ; then place them in the flower-house. Let them remain in this pot until they fill it with roots, which will be by October, if the suckers be strong. Shift into No. 8, and when the pot is full of roots, which will be in the spring, then give one more shifting into No. 6, and place them in the open air until October, when remove into the flower-house : with the above treatment they will flower in April. Should you want the plant to flower in the autumn, keep it in the flower-house all the summer. The old established plant, if placed in the open air during the summer months, will blossom in April, if taken into the flower-house in October. Give abundance of water to them whilst they are in heat.

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## CYCLAMEN COUM, PERSICUM.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

## PRIMULACEÆ.

Corem, native of S. of Europe, 1596 ; Persicum, of Cyprus, 1731. — Propagation, seeds and division.

These charming genera deserve a little care. They require to be dormant for a short time. Early in June, remove them from the conservatory to the north side of a wall or hedge ; lay the pots on their sides, and let them remain in this state until October. At this time turn them out of their pots, shake the soil partly from their roots, and repot them in the following soil :—two parts loam, one part leaf, one bog, with a little sand ; then place them in the greenhouse, near to the glass, and where they will have a free circulation of air. Remove them into the conservatory as they come into flower, where they are to remain until they have made a good foliage ; then remove as directed above.

They grow much finer in a cold frame, and the pots plunged in ashes. Draw off the lights every day to give them air, except in heavy rains and cutting winds. Let them have air during the nights if there be no frost. For protection in severe frosts, cover up the frame with mats and straw. Never water but when they are dry, as they are very liable to perish when kept too moist.

## CYPRIPEDIUM CALCEOLUS.

*Class*, GYNANDRIA.*Order*, DIANDRIA.

ORCHIDÆ.

Native of England.—Propagation, division of roots.

SIR,

The treatment of the above plants, as practised by me, is as follows:—in the autumn I collect a little light yellow loam from under a quick thorn hedge, with the decayed and half decayed leaves of the hedge. In this I pot my plants, taking care to drain the pots well. I cover the crown of the plant about one inch, leaving the soil highest in the centre of the pot, to throw off the damp. I then plunge it up to the rim in a sheltered situation, free from drip, occasionally covering with a little tan, and a large flower-pot to protect it from heavy rains or very severe frosts: with this protection I have kept them during this severe winter. They are now in a healthy state. In the spring I introduce them into the vinery; in about three weeks they flower. I then inure them by degrees to the open air, where they remain until the blooms are decayed. I then return them to their old quarters and proceed as before, as the season comes on.

I am, Sir, &amp;c.,

W. BURNET.

York, March 11th.

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## EDWARDSIA GRANDIFLORA.

*Class*, DECANDRIA.*Order*, MONOGYNIA.

LEGUMINOSÆ.

Native of New Zealand, 1772.—Propagation, seeds and cuttings.

This shrub is remarkable for its fine foliage and curious flowers. It grows and blossoms well in two parts loam, one part leaf mould, with a little sand. Pot in May.

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## DIANTHUS.—THE PINK.

*Class*, DECANDRIA.*Order*, DIGYNIA.

CARYOPHYLLÆ.

Native of England.—Propagation, layers and pipings.

Put in a number of pipings early in February, place them in a gentle heat. When struck root, plant them out in an open place in the kitchen garden; take them up in August, pot them in rich soil in No. 32 pots; give them a good watering, and plunge the pots up to the rim. Remove a few in January into the flower-house, and place them on a shelf near the glass, but reserve the greater part until February, and some until March; you will thus have a succession for some time.

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## EPIPHYLLUM JENKINSONII, SPECIOSUM.

*Class*, ICOSANDRIA.*Order*, MONOGYNIA.

## OPUNTIACEÆ.

Jenkinson, hybrid. 1810 ; Speciosum, native of Brazil.—Propagation, seeds and cuttings.

This singular and beautiful genus cannot be too much cultivated. Its flowers are so attractive that they may be reckoned amongst the most showy of Flora's beauties. They are hardy enough for the greenhouse, but attain to their greatest perfection when bloomed in the flower-house. In this case, the plants that are most forward should be removed from the greenhouse to the flower-house early in February, and for succession, others should be removed in March, April and May. When they have done blooming, repot them, and replace them in the flower-house until June, when put them on tiles or slates close to a south wall. Some of the plants will show for blossom in the autumn ; these place in the flower-house to perfect their bloom ; when done flowering, replace them in the greenhouse. In October, remove all the plants from under the south wall into the greenhouse, where they are to remain during the winter. In February, proceed as above.

Engrafting any of the epiphyllums on the cereus speciosissimus is easily performed, by taking a

part of the variety you wish to engraft, and paring it into a wedge shape; then make an incision in the stock in proportion to the size of the scion, then insert the scion, and put a pin through both to prevent the scion from being displaced. You may engraft as many varieties upon it as you please. They present a pleasing sight with two, three, or four varieties being in flower at the same time.

The speciosissima is decidedly the best for engrafting upon. They require water in abundance when placed in heat, and during the summer months, but not any whilst in the greenhouse. Dung-water once a week is very beneficial to them.

SOIL.—Two parts strong loam, one part dung, one rough sand and one peat.

Keep them to a certain number of stems, removing all lateral shoots as they appear.

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### GASTROLOBIUM BILOBUM.

*Class*, DECANDRIA.

*Order*, MONOGYNIA.

LEGUMINOSÆ.

Native of New Holland, 1803.—Propagation, cuttings.

A beautiful little plant, requiring to be kept in the most airy part of the greenhouse, near to the glass. It grows well in peat and loam.

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## GOMPHOLOBIUM GRANDIFLORUM.

*Class*, DECANDRIA.*Order*, MONOGYNIA.

LEGUMINOSÆ.

Native of N. S. Wales.—Propagation, seeds and cuttings.

A fine plant, deserving a place in every greenhouse for the beauty of its flowers, and the length of time it remains in blossom. It thrives in peat, with a little white sand. It should be kept in the greenhouse throughout the year, and near the glass. Being a straggling grower, occasionally pinch off the leading buds, which will make it grow more compact.

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## HELIOTROPIUM PERUVIANUM.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

BORAGINÆ.

Native of Peru.—Propagation, cuttings.

This deliciously scented flower is well worthy a place in every collection of plants. Strike cuttings early in the spring, pot them into No. 90, place them in a gentle heat until well rooted; inure them gradually to the open air. In the latter part of May, shift them into No. 48, keeping them in the open air, and continue to shift them as they fill the pots with roots until they are in No. 24, in which size pots let them remain for flowering. They will blossom most of the autumn months, and will begin again to bloom this month. They will be of service for turning out into the flower-garden in June.



## HYDRANGEA HORTENSIS.

*Class*, DECANDRIA.*Order*, MONOGYNIA.

## SAXIFRAGÆ.

Native of China, introduced by Sir Joseph Banks, 1788.—Propagation, cuttings.

Mr. Hedges, who has succeeded in growing this plant to a remarkable degree of perfection, gives the following directions for its cultivation:—As a succession of young plants is necessary, I raise some each year, by taking, in the beginning of July, young shoots with three or four joints, cutting them off close to the joint, which is at the bottom of the shoot. These I plant in rich earth in a warm border, and cover with a hand-glass. They are shaded during the middle of the day, and sprinkled with water from a fine-rosed watering pot two or three times a week, in the evening, so as to keep them moist, the glass being kept over them at all times. They will also grow by layers made in July, in the same way as carnations. The cuttings, or layers, will be well rooted by the end of August, at which time, or early in September, they must be put singly into small pots, and placed under a frame, which at first must be shut up close. If they can be assisted by a moderate dung heat at this time, it will be better for them. In the frame they must be shaded and watered as before. About the middle or end of October they are to be taken into the greenhouse, or under other shelter, where they

can be protected from wet and frost. During the winter they must be watered once a week, or fortnight, as they may require. In the latter end of May, or early in June following, they should be turned out into a bed of rich mould in the open ground, to remain there until September, when they are to be taken up and potted, and kept from cold and wet during the winter. Instead of turning them out, as in the preceding spring, they must remain in the pots; but they must be shifted twice during the summer. By either of these methods, fine strong plants will be formed for forcing or turning out the ensuing spring.

Care must be taken to supply them plentifully with water whilst they are coming into bloom, and it is best to place water-pans under them, to secure a continual supply of moisture, when intended to have them brought forward with forcing heat.

The mould I generally give to my hydrangeas is a compost of loam and bog earth, or leaf mould, with a little sand, well incorporated together. In this they will produce red flowers. If it is desired to have the blossoms blue, they should be planted in pure yellow loam. When the plants are repotted, remove part of the old soil, and repot in pots proportionate to the size of the plants. This should be done in January, and if

the plants are then placed in heat, they will flower this month.

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### JASMINUM SAMBAC, GRANDIFLORUM.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

#### JASMINEÆ.

Sambac, native of the E. Indies, 1665 ; Grandiflorum, of E. Indies, 1627.—Propagation, cuttings.

These varieties of the jasmine grow in loam, decayed wood, and bog soil, with about one sixth cally sand. They flower nearly every month in the year, if kept in the greenhouse, and placed in heat in succession. They must be in the flower-house from December to March ; at other times they will do in the greenhouse. By placing them in the flower-house, the young flower shoots are caused to put out, and it is necessary for their preservation during winter. This is the season of the year in which they are mostly in blossom.

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### LOBELIA ERINUS, BICOLOR,

AND SEVERAL OTHERS OF SIMILAR HABITS.

*Class*, PENTANDRIA.

*Order*, MONOGYNIA.

#### LOBELIACEÆ.

Native of Cape of Good Hope.—Propagation, cuttings.

These may be treated the same as the heliotro-

pum, with this exception,—train several of them upon wires, or small sticks, which will give them a fine effect, allowing others to hang pendent on the sides of the pots. They will flower all the year, and be of the utmost service to turn out into the flower borders.

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### PRIMULA AURICULA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

#### PRIMULACEÆ.

Native of Switzerland.—Propagation, seeds, division.

The proper time for potting this little favourite is early in August. It thrives well in two parts yellow loam and one part cow-dung : which should have been one year in the compost yard before being mixed, and when mixed, the compost should remain another year before it is used, during which period it should be turned over several times. Have your pots well drained ; use No. 48. Take the best suckers, and pot them in the above soil ; give them a good watering, and place them in a single or double light box, according to the number of plants, plunging them in ashes within about six inches from the glass. Shut up close for about a week, and shade from the sun, then give air gradually. When you have got them sufficiently hardy, draw off the lights early in the morning, and after the sun has left the frame. You may harden them to the sun by de-

grees, but always put on the lights in the evening, tilting them both at the front and back, in order to give a circulation of air. Let them be protected from heavy rains. Give water when they appear dry ; but do not over water them. This treatment will suffice until frost comes very severe. When that is the case, put down the lights, but never cover up the glass, for if they are deprived of fresh air and light, they will be drawn up weakly. Some few will show flower in the autumnal and winter months ; remove the buds as they appear until January, during which month that beautiful mealy appearance will begin to show itself. Therefore, when you water, from this time until the blooming season is over, do it without the rose on the watering pot. Be sure to remove decayed leaves as they appear. Give all the air you can in the winter and spring months, otherwise you will ruin the plants, by drawing them up weakly. As soon as the flowering season is over, give a good watering ; take the lights entirely off as soon as the foliage indicates decay. Lay the pots on their sides under a north hedge until August.

If the above treatment is strictly followed, a most splendid show of bloom will be the result.

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## RHODANTHE MANGLESII.

## COMPOSITÆ.

Native of Swan River.—Propagation, seeds.

SIR,

In answer to yours, I send you the treatment of the above plant as pursued by me. In the second week in August I sowed the seed, and placed the seed-pan on a north border. As soon as the plants were sufficiently strong, I potted them into small pots, and set them in the same place, where they remained until the proper season for housing greenhouse plants, at which time they were put in an airy part of the greenhouse, and shifted as they filled their pots with roots. The soil I used was three parts light loam, one part peat. I water the plants sparingly during the winter months, as I find them subject to the mildew. I water once a fortnight with draining from the farm-yard: to this I attribute the excellency of the plant.

Yours, &c.,

White Waltham,  
20th April, 1841.

J. SILVER.

For this unique specimen, which was pronounced by an excellent judge to be the best plant in the room, the Banksian Medal was awarded at the Horticultural Society Meeting, 6th April, 1841.

For succession blooming plants, it is only requi-



site to sow the seeds early in April, place the seed-pan on the north border, and protect it from heavy rains and frosty nights. The rhodanthe is one of the best annuals.

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### YUCCA SUPERBA, AND ITS ALLIES.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

TULIPACEÆ.

Native of America, 1590.—Propagation, cuttings of the roots.

Noble plants, well adapted for a conservatory. They thrive well in strong rich soil with plenty of pot room, and an abundance of water during the summer months, when in vigorous growth, but little during the winter.

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## MAY.

### GREENHOUSE.

As frost, in most instances, will in this month be slight, give over fires for the season, except to dry up the damp.

AIR,—give as much as you can during the day; leave a little on mild evenings.

WATER will be in much demand, give a good supply to those plants which are of quick growth.

Syringe every fine morning.

Towards the latter end of the month, should the

weather be mild, remove the most hardy kinds of plants into the open air.

### CONSERVATORY.

HEAT.—Give up fires.

AIR.—Admit freely, as recommended for the greenhouse.

WATER.—Give a good supply when requisite.

Remove any decayed leaves, dead shoots, or plants as they have done flowering. Tie up such trailing plants as require it.

### FLOWER-HOUSE.

HEAT.—As last month.

AIR.—Admit freely.

Syringe as last month, pour water on the flues, attend to watering, give a good supply to plants requiring it.

### LIST OF PLANTS COMING INTO FLOWER.

<i>Boronia serrulata.</i>	<i>Mimulus.</i>
<i>Calceolaria.</i>	<i>Pelargonium.</i>
<i>Canarina campanula.</i>	<i>Petunia.</i>
<i>Chorizema.</i>	<i>Philibertia grandiflora.</i>
<i>Erica.</i>	<i>Rondeletia.</i>
<i>Æschynanthus grandiflorus.</i>	<i>Sprengelia incarnata.</i>
<i>Fuchsia.</i>	<i>Tropæolum tricolor.</i>
<i>Gardoquia multiflora.</i>	<i>Verbena.</i>
<i>Jasminum.</i>	<i>Vinca rosea.</i>

## BORONIA SERRULATA.

*Class*, OCTANDRIA.      *Order*, MONOGYNIA.

RUTACEÆ.

Native of New South Wales.—Propagation, cuttings.

This little beauty grows well in two parts peat and one part loam, with about one sixth cally sand.

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## CALCEOLARIA.

*Class*, DIANDRIA.      *Order*, MONOGYNIA.

SCROPHULARINÆ.

First variety introduced from Peru, 1773.—Propagation, seeds, division, cuttings.

A very fashionable genus, and well deserving its popularity. It is of easy cultivation, yet to have it in great perfection requires a little care. Cuttings struck in the summer and kept in No. 48 sized pots during winter. In February they should be shifted into the next size pots; and shifted again in April.

SOIL.—equal parts pigeons' dung, brown loam, bone dust, bog and rough sand.

WATER with dung water once a week when they have filled the pots with roots. Often sprinkle them over head with clear water, and give it freely to the roots when in a full growing state.

For succession bloom it will be only necessary to shift from small pots to larger ones every month during the summer season.

The bicolor is a fine variety for December bloom : it requires to be shifted into large pots in August, and it will blossom from October until the beginning of January.

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#### CANARINA CAMPANULA.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

#### CAMPANULACEÆ.

Native of the Canaries, 1696. — Propagation, division.

This beautiful stove plant is of easy culture. It requires to be dormant nearly six months in the year. In January, shake out the plant, and repot in the following compost: loam, leaf mould, with a little rough sand. Place it on the tan, or over a flue ; give plenty of water when growing freely. When in bloom remove it into the conservatory, where it may remain until the foliage decays ; then withhold water, and place it on a back shelf in the flower-house, until you wish to bring it forward again.

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#### CHORIZEMA.

*Class*, DECANDRIA.      *Order*, MONOGYNIA.

#### LEGUMINOSÆ.

Native of New Holland, first introduced, 1803. — Propagation, seeds, cuttings.

This elegant genus of plants thrives well in bog,

peat, and old wood, with about one-sixth cally sand. Place them near to the glass. Attend to the watering. Do not sodden the soil, nor allow them to flag.

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### ERICA.

*Class*, OCTANDRIA.      *Order*, MONOGYNIA.

### ERICEÆ.

Natives chiefly of Cape of Good Hope, 1773.—  
Propagation, seeds and cuttings.

This interesting genus claims our admiration for its singular and various forms and colours, and more particularly because by a judicious selection we may have flowers for every month in the year. The heath requires a house to itself, to grow it to any degree of perfection: it ought always to be kept as cold as possible whilst in the house. Fire heat should not be used at any time, excepting on very severe frosty nights.

The soil in which heaths grow is peat soil, taken from the surface of the ground, and mixed with about one fourth of cally sand. No regular period can be assigned for shifting, but I prefer it when the flowering season is over.

Whilst under glass, keep the plants as near to it as possible.

**WATER.** — This element must be supplied by a judicious hand; if once the ball is suffered to become dried through, I know not of any means by

which it can be recovered again ; it is certain death to it, and that almost instantly ; and, on the other hand, should the ball of earth be soddened and kept in that state, a lingering death will be the consequence.

When they are removed into the open air, protect them from heavy rains and the hot sun, as both these are very injurious ; indeed it is preferable to keep them in the house on this account.

The heathery ought to be constructed so as to have a thorough current of air to pass through it, and it should be provided with a temporary shade to be used on hot days.

I would recommend to every one who wishes to excel in the cultivation of this genus of plants, to consult the Treatise on the *Culture and Propagation of Erica*, by Mr. M'Nab, of the Edinburgh Botanic Garden, a gentleman who stands pre-eminently distinguished for the cultivation of the erica.

The following is a list of ericæ obtained from Mr. W. L. Rider, in the transmitting of which he observes that they are classed in a manner peculiarly adapted to the character of my publication, and that the season of flowering them varies very considerably, depending much upon the manner of treating them. They are arranged in monthly order.



## JANUARY.

Sanguinea.	Mammosa.
Archeriana.	Grandinosa.
Mutabilis.	Acuminata.
Purpurea.	Longiflora.

## FEBRUARY.

Linnæoides.	Capitata.
Hymalis.	Banksia.
Vernix.	Tenella.
Calycina.	Pyramidalis.

## MARCH.

Blandfordiana.	Patersoni.
Nigrita.	Linnæana.
Ardens.	Carinata.
Arbuscula.	

## APRIL.

Colorans.	Nigrita.
Andromedæflora.	Eximia.
Aristata major.	Mirabilis.
Mundula.	

## MAY.

Gemmifera.	Epistornia.
Bandoniæ.	Odorata.
Elegans.	Perspicua.

## JUNE.

Depressa.	Vestita.
Gemmifera.	Sulphurea.
Ventricosa.	Prægnans.

## JULY.

Tricolor.	Retorta.
Ampullacea major.	Metulæflora.
Grandiflora.	Splendens.

## AUGUST.

Infundibuliformis.	Irbyana.
Savillii.	Cruerita.
Princeps.	Juliana.

## SEPTEMBER.

Cerinthoides major.	Speciosa.
Masseni.	Ewerana.
Blanda.	Bergiana.

## OCTOBER.

Aitoniana.	Serratifolia.
Formosa.	Verticellata.
Versicolor.	Taxifolia.

## NOVEMBER.

Lambertia.	Virescens.
Rupestre.	Palustris.
Exsurgens.	Concinna.

## DECEMBER.

Exsurgens coccinea.	Mutabilis.
Bowieana.	Filamentosa.
Coccinea.	Ramentacea.

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## FUCHSIA, VARIETIES.

*Class*, OCTANDRIA.*Order*, MONOGYNIA.

## ONAGRARIÆ.

Native of South America, first introduced 1788.

—Propagation, seeds, cuttings, grafting.

Cuttings struck in January, potted into No. 70, and shifted during the summer months at different times until they are in No. 16, will flower the spring following, and will make a fine show this month.

Compost for the fuchsia in all stages, two parts yellow loam, one part dung, with a little rough sand.

The fuchsia fulgens is a noble addition to this genus: it requires a little different treatment from the rest of the varieties. Its root being similar to that of the dahlia, it is increased in the same way. In January cut the plant down to the ground, place it in rather a brisk heat, numerous young shoots will shortly appear; split them off: if you wish for a ready striking of them, place them in a gentle dung heat, or in a propagating house. Pot off in No. 60; follow up a succession of shifting until you have them in No. 12, in which size they will do this season. If you wish to have a stemmed plant, train one or more upright, cutting away all lateral shoots. Preserve it during the winter, and the following season you will have a beautiful head. This variety is proved to be perfectly hardy,

therefore you can turn a number of them into the flower-garden.

In extensive conservatories, several of the strong growing varieties produce a fine effect, if pruned so as to grow as straight stems to the height of seven or eight feet, and then at the top spread out in the form of an umbrella, or any other fanciful shape, according to your taste. Although this is a tedious method of training, it will repay the trouble, when time will allow for adopting it. Most of the varieties will grow and flower well in the autumnal months under a more simple treatment: having strong plants in March, shake the old soil from their roots, pot them in large pots, place them in a cold frame, or in the greenhouse. Give them plenty of air. Early in June remove them into the open air, they will flower in succession. When done blooming, and the frost begins to set in for winter, put them into a room or shed, or any other place protected from severe frost: in this situation let them remain until March, then proceed as before.

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### GARDOQUIA MULTIFLORA.

#### LABIATÆ.

Native of China.—Propagation, cuttings.

SIR,

According to your request, I send you my method of growing the *gardoquia multiflora*. In

the autumn I received a plant and kept it in the greenhouse until February, when I commenced shifting, and continued to do so, as it filled its pot with roots, until it was in No. 12. In May, it began flowering, and continued to bloom in abundance until June; I then turned it out into a flower border in the open air; by this time it had made a very fine bushy plant, and was covered with blossom.

I prefer striking cuttings early in the summer, to retaining the old plant during the winter months.

SOIL.—Loam and peat, equal parts.

W. HARRISON.

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## GARDOQUIA HOOKERII.

### LABIATÆ.

Propagation, cuttings.

This is by far the finest variety of this genus; its lovely scarlet flowers have a beautiful effect. It is also a greenhouse plant: it requires to be kept as near the glass as possible, and to be sparingly supplied with water, giving it only when the plant is dry. It should be kept in the greenhouse all the year. By attending to this treatment you will ensure a fine healthy specimen; a free circulation of air, however, should be kept round the plant.

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## JASMINUM GLAUCUM.

*Class*, DIANDRIA.*Order*, MONOGYNIA.

JASMINEÆ.

Native of Cape of Good Hope, 1774.—Propagation, cuttings.

A very fragrant plant, blooming in abundance during this and the next month, when treated as follows. Cuttings should be struck early in the spring, potted into No. 60, and placed in a gentle bottom heat until rooted; then they should be removed into the greenhouse and shifted into the next sized pots, as they fill their pots with roots, during the summer. In November, gradually diminish the supply of water, and keep them in as dormant a state as possible until the following March, at which time shift them into pots as large again as those they are in, but previous to this operation let the ball be well watered, that it may not be hard and dry. Let the plant remain in this pot all the season. In November, proceed as recommended for young plants; in March following, reduce the ball to half its size, and repot in the same sized pots as before.

The plants will require to be kept tied to trellises or stakes, and to be pruned every spring, by shortening the long shoots and cutting those which are weaker to one eye.

SOIL.—Bog, peat, and loam, equal parts, with a little rough sand.



## MIMULUS.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

## SCROPHULARINÆ.

Native of North America, first introduced 1783.  
—Propagation, seeds, division.

Although this is a perfectly hardy plant, yet to grow it to great perfection requires a rich soil and a large pot. To have it in bloom this month, pot the young plants in February; three plants in one pot, using No. 16. Give plenty of water, and place them in the greenhouse near the glass. For succession of bloom, pot every month until July.

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## PELARGONIUM.

*Class*, MONADELPHIA.      *Order*, HEPTANDRIA.

## GERANIACEÆ.

Chiefly from Cape of Good Hope, 1690.—Propagation, seeds, cuttings.

This is a charming genus: it is fast approaching to perfection, but still there is much room for improvement in its cultivation. A good flower must possess three distinct properties: first, the blossom ought to be circular, that is, if you place one leg of a compass in the eye of the flower, the other leg ought to touch the outer edge of the petals all round; secondly, the colours must be clear and distinctly marked; thirdly, the truss must be bold

and supported by a strong flower-stalk. Dennis's Perfection, and Guinness's King possess the last properties.

The flowering of this genus is in most instances confined to the month of May, but I cannot see why it is necessary that the display of its beauties should be limited to the spring. I am well aware that they will bloom in as great perfection at other periods, for I have at this time (the 20th October) a plant which is not more than fifteen inches high, with five stems which have 150 flowers, and other buds ready to expand.

The following treatment I recommend for plants to blossom in May :—

Let the cuttings be struck early in February, and potted as soon as rooted in No. 60 pots ; then place them where they will receive a gentle bottom heat until they are fast rooted. As soon as they are established in their pots, remove them into the greenhouse ; keep them constantly shifted as they fill their pots with roots, until they are in No. 16 pots, in which let them remain until February, then shift them into No. 12, in which size flower them. As soon as the flower-buds are visible, commence watering with dung water once a week until the flowering season is over.

SOIL.—Equal parts of strong brown loam and well decomposed horse-droppings, with one-sixth of rough sand.

Pruning is necessary : the head must be pinched out at the time of potting the cuttings, if there be five leaves left on the plant ; if not that number, allow it to grow until there are five : the reason for leaving five leaves is to secure that number of shoots ; these shoots must be left to grow until August following, when they must be cut back, leaving two strong buds on each shoot, and removing all laterals as they appear : this being attended to, the plants bloom much stronger.

**WATER.**—This element must be given to them with caution until they are established in their pots ; but when in a fine growing state they require an abundance of water.

**AIR.**—Each plant ought to have a free circulation round it, and to be placed near the glass. When the plants have done blooming, turn them out into the open air ; they will blossom again in the autumn. If you wish to preserve any of the old plants for flowering the following May, return such into their pots in August, prune them back, and as soon as they have made shoots about one inch long, turn the plants out of the pots, shake all the soil from the roots, and repot them in pots proportionable to the size of the plants.

For autumnal blooming, strike cuttings during the summer months, and pot the plants into No. 60 ; shift them into No. 48, in which pots let them remain until February, when shift them into No.

32, and as they fill their pots with roots, until they are in No. 16.

PRUNING.—This is performed at the potting off of the plants, and again in March, April, and May : these last plants supply bloom from July to December.

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### PETUNIA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

#### SOLANÆÆ.

The first plant of this genus was from South America, 1823.—Propagation, seeds, cuttings.

This genus is well worth attention, and will succeed well under the following process. Strike cuttings in June ; pot in No. 60 ; shift when the pot is full of roots into No. 8. Train to a fan, or over a circle, or any other form taste or fancy may choose ; by this time the plant will be covered with blossom : shift others into No. 8 pots in the spring for a succession.

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### PHILIBERTIA GRANDIFLORA.

*Class*, PENTANDRIA.      *Order*, DIGYNIA.

#### ASCLEPIADEÆ.

Native of Buenos Ayres.—Propagation, cuttings.

This plant is deserving a place in every collection for the singularity of its flowers, which it produces in abundance.

Strike cuttings early in the spring, and put them

into No. 60. Shift once during the summer into No. 48; early in February repot the plant into No. 12, and place sticks or wires to train the young shoots to as they advance; and in the following year you will have an abundance of bloom if the plant be kept clear from the green-fly, it being very liable to be injured by that pest.

SOIL.—One part loam, one decayed wood, one peat bog, with about one sixth of cally sand.

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### RONDELETIA SPECIOSA.

#### RUBIACEÆ.

Native of Cuba.—Propagation, cuttings.

This is a fine shrub, growing from four to five feet high, and producing its flowers in most seasons of the year. I received a plant early in the year, potted it in No. 32 size pot, in the following soil: loam, decayed wood, and peat, with about one sixth part cally sand. I kept it in the stove until May, when I removed it into the conservatory, where it remained until September, at which time I removed it into heat. The flowers are slightly odorous, but in their own country they emit a powerful fragrance. The colour of the bloom is rosy red, with an orange coloured eye; they are about half an inch across, and put forth in panicles.

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## SPRENGELIA INCARNATA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

EPACRIDÆ.

Native of New South Wales, 1793.—Propagation, cuttings, division.

This little beauty grows well in bog and old wood of equal parts, with about one sixth of cally sand. Repot in February, just at the time it begins to grow. As soon as the foliage is decayed, which will be in September, withhold water; give it three months rest. In January give a moderate supply of water, which will cause it to vegetate, then place it as near the glass as possible, and repot as before.

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## TROPÆOLUM TRICOLOR.

*Class*, OCTANDRIA.      *Order*, MONOGYNIA.

TROPÆOLEÆ.

Native of Valparaiso, 1828.—Propagation, cuttings, seeds.

This being a bulbous plant, requires a season of rest. The proper time for affording it is when the foliage indicates decay, which will be in October or November. As soon as the leaves have a yellow cast, then withhold water gradually until they are dead. Then remove the decayed shoots and place the pot on a shelf: let it remain until March following, then take and shake all the soil from the bulb, and repot it into No. 48 if it be



a fine strong bulb ; then place it in a gentle heat : as soon as it has pushed, remove it into the greenhouse, placing it near the glass.

The roots of this plant are very delicate, therefore be cautious of water until it is in a vigorous growing state. As soon as it has filled its pot with roots, shift into No. 24, and lastly into No. 16. In planting the bulb you must cover it over, otherwise it will spindle up weak and not flower.

When there are plenty of bulbs, it is advisable to plant them this way every alternate year ; those which are planted beneath the soil, by growing and blooming profusely, are greatly weakened ; and on the other hand, when not buried in the soil, they make weak shoots, but form strong blooming bulbs for the succeeding year.

SOIL.—Two parts yellow loam, one part peat, one white sand. Take care to drain the pot well.

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### VERBENA.

*Order*, DIDYNAMIA.      *Class*, ANGIOSPERMA.

### VERBENACEÆ.

Native of North America, &c. — Propagation, seeds, cuttings.

This is a charming flowering trailing plant, growing well in light rich soil. Strike cuttings early in May ; pot off when struck, into No. 60, one in a pot ; shift during the summer into No. 48, in which pots let them remain all the winter.

Early in February shift into No. 16, and you will have a most splendid show this month.

Cuttings struck in January and potted in No. 90, and shifted as they fill the pots, bloom in great beauty in October and November. Train some upon stakes and wires, as recommended for the LOBELIA.

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### VINCA ROSEA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

#### APOCYNÆ.

Native of East Indies, 1756.—Propagation, cuttings.

This is also a charming flowering plant, and continues in blossom all the year; but, as I prefer a mass of bloom to a few straggling ones, I treat it as follows, in order to effect this in May. In January I repot the plant, giving it plenty of pot room, using the following compost: two parts loam, one part dung, one bog, with a little rough sand. Pinch off the flower buds as they appear until the latter end of April, when allow the buds to expand. If you wish to have a fine blow in November, pot again in July, as directed above. The plant may remain from May to July in the conservatory, which will prepare it for a fresh growth.

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*ÆSCHYNANTHUS GRANDIFLORUS.*

Native of Khasee.—Propagation, cuttings.

Like the rest of its allies, this succeeds best in sphagnum and turfy peat, and, as a parasitic, grows equally well on a piece of decayed wood, with sphagnum over its roots.

It requires a moist stove, but it will grow in a greenhouse. It flowers from May to August.

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*FABEANA IMBRICATA.*

Native of New Holland.—Propagation, cuttings.

A pretty greenhouse shrub: it requires to be placed near the glass, where it will receive a free circulation of air.

SOIL.—Sandy turfy peat; give the pot good drainage. Shift in June, and place it in the greenhouse until July, when remove it into the open air, where it can receive the morning sun. Replace it in the greenhouse early in September.

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*PHŒNOCOMA PROLIFERA.*

*Class*, SYNGENESIA.      *Order*, SUPERFLUA.

COMPOSITÆ.

Native of Cape of Good Hope, 1789.—Propagation, cuttings.

A beautiful plant; its fine foliage alone must

recommend it to notice, but it is, moreover, a very free blooming plant: the flowers are produced at the terminations of the young shoots.

SOIL.—It flourishes in sandy peat, with a good proportion of fibre in it. The drainage must be complete, otherwise it is liable to perish. Place it in the greenhouse, near the glass, where it will receive a free circulation of air. Keep it in the greenhouse all the year.

WATER.—A moderate supply, but do not allow it to flag for want of it.

It is propagated by cuttings, which strike well, if planted in peat and cally sand of equal quantities, and placed in a gentle bottom heat, without a bell glass. The cuttings must be of the half ripened wood, cut close off to the stem, and inserted without removing any of the globular knobs or leaves.

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#### GNAPHALIUM EXIMIUM.

*Class*, SYNGENESIA.      *Order*, SUPERFLUA.

COMPOSITÆ.

Native of Cape of Good Hope.—Propagation, cuttings.

This noble greenhouse plant is deserving a place in every choice collection for its fine showy flowers, which it produces from May to August. It will not thrive unless placed in a situation where there is a free circulation of air. As its leaves are

covered with a thick substance resembling down, it ought never to be syringed, and no wet should be allowed to fall upon the leaves in the winter. It also requires the benefit of a dry air: its situation in the house should therefore be over the flue.

**SOIL.**—It succeeds well in leaf soil and peat, with a portion of cally sand mixed amongst it. The drainage must be good.

**WATER.**—During winter it must have only just sufficient to keep it from flagging, but when in a vigorous growing state it will require a good supply.

It strikes freely from cuttings inserted in peat soil and cally sand, and placed in a cool frame where there is no damp vapour or steam rising.

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#### PETREA STEPHALIA.

*Class, DIDYNAMIA.      Order, ANGIOSPERMIA.*

VERBENACEÆ.

Native of South America, 1796.—Propagation, cuttings.

A climbing plant with lilac flowers, and nearly allied to *P. volubilis*, but a more beautiful species, and, when grown well, is a great ornament as a stove plant. It strikes freely from cuttings, and, as it grows very rapidly, it must be constantly shifted.

**SOIL.**—Equal parts light loam, peat, leaf soil, well decomposed dung, and rough sand. It will



succeed equally well in large pots or planted out in a border in the stove. Be sure to give it a free drainage, otherwise it will do no good.

**WATER.**—When the plants are in a free growing state give plenty of water, but little when they are at rest.

**HEAT.**—During their dormant state, from 40° to 60°, with a dry atmosphere: when growing freely, from 60° to 100° fire heat.

P. N. DON.

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KÆMPFERIA ELEGANS.

*Class*, MONANDRIA.

*Order*, MONOGYNIA.

SCITAMINEÆ.

Native of East Indies, 1828.—Propagation, division.

This is a small but beautiful plant; the leaves are ovate and acuminate, and slightly striped. The flowers proceed from the base of the leaf, and rise two or three inches; they are of a bluish purple colour, and large in comparison to the size of the plant: they are the flower of a day only, but are produced in succession for two or three months. In the month of February turn the plant out of its pot, shake all the soil from its roots, and repot the plant in light rich fibrous loam, draining the pot well previously. When repotted, place it on the bark bed in the stove; give it but little water until it commences growing, then use water more freely



until it has perfected its growth, which will be about the time the flower appears, then it must again be used more sparingly, and when the foliage begins to decay, it will require no more water until the spring. It may then be placed upon a dry shelf in the stove, where it will remain in a healthy state until the return of spring, when proceed as before directed.

P. N. DON.

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JONESIA ASOCA.

*Class*, HEPTANDRIA.      *Order*, MONOGYNIA.

LEGUMINOSÆ.

Native of East Indies, 1796. — Propagation, cuttings.

A beautiful shrub, bearing orange coloured flowers in racemes; it attains, in our stoves, about the height of four feet. It requires to be grown very strong, otherwise it does not produce flowers. During the winter it should have a heat from 50° to 55°, and a dry heat is indispensable to keep it in good health, which should be retained from November to March, when moisture and heat must be gradually increased. By this mode of treatment it will flower freely.

This plant must never be allowed to get pot-bound or unhealthy, for if that be the case it will never flower. The season of potting is from March to May, and good light rich loam will be found the best soil in which to grow it in vigour.

It will strike freely from cuttings of the half ripened wood in a lively bottom heat, in which they must be kept until they have attained to about a foot in height, at which time place them amongst the other plants, and treat them as above.

P. N. DON.

### ASTROLOMA HUMIFUSUM.

*Class*, PENTANDRIA.

*Order*, MONOGYNIA.

EPACRIDÆ.

Native of New South Wales, 1801.—Propagation, cuttings.

A beautiful scarlet flowering shrub, worthy the care of every collector: it will live well in sandy fibrous peat, with a good drainage, and placed near the glass. It should be kept in the house all the year.

### JUNE.

#### GREENHOUSE.

The plants which were left in the greenhouse last month most now be removed into the open air, with the exception of such delicate ones as you wish to keep in a fine growing state; let these be set as near the glass as possible, and let them have as much air as can be given.

Be careful to water them as often as wanted, and syringe them frequently.

Let the plants which are removed into the open air be pruned, and cut out the sickly and strag-

gling shoots. Tie up those which are weak, and give a general top dressing to all the plants: first remove as much of the upper soil as convenient, without disturbing the roots too much; when done give a good watering. Syringe them over the head once or twice a week, if the weather be very dry. Great care should be paid to give plenty of water at this season of the year. Attend to shifting all plants as directed under their several heads, or as you may see occasion for it.

#### CONSERVATORY.

The plants in flower must be duly attended to with respect to water, and the borders must have a good supply when dry. Syringe every evening; admit as much air as possible during the day, and a little during the night. Keep this department free from all dirt, and gently fork the borders to let in the air and moisture to the roots of the plants. Wash the leaves of oranges, camellias, and all broad leaved plants, which greatly refreshes them. Fumigate the house, if requisite, to destroy the green-fly.

#### FLOWER-HOUSE.

If the beginning of this month be mild you may give up the fires, and admit air freely early in the morning: shut up about three in the afternoon, at which time water your plants, and syringe the house; this causes a moist atmosphere during the night, which greatly refreshes them.

## A LIST OF PLANTS IN FLOWER THIS MONTH.

Alstræmeria Pelegrina,	Gardenia florida, flora
bicolor, Russeliana.	plena, fragrans.
Arthropodium cirratum.	Hibiscus rosea, with its
Euphorbia splendens.	varieties.
Gesneria, varieties of.	Mesembryanthemum, va-
Gloxinia, varieties of.	rieties of.
Sinningia, varieties of.	Tropæolum Canariensis.
	Clintonia pulchella.

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## ALSTRÆMERIA PELEGRINA, BICOLOR, ETC.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

## AMARYLLIDÆ.

Pelegrina, native of Peru, 1753; bicolor, native of China.—Propagation, seeds, division.

These beautifully flowering greenhouse plants require a light soil. The following is the soil I have found them grow remarkably fine in: two parts bog soil, one part yellow loam, one rotten wood, with about one-sixth cally sand. Early in November turn them out of their pots and plant in No. 48, in which pots let them remain until February, when shift into No. 32. If they have filled their pots with roots by April, shift them into No. 24 or 16, according to the growth of the plants. Russeliana is a very strong grower, and it is probable it will require a larger pot than No. 16, but you must be guided in this particular by the strength of your plant. Drain

your pots well, always keep them near to the glass, and tie up the flower-stems as they advance.

Water will require your attention during the winter months, for if you keep them soddened with water they will not flourish : keep them in what is termed a growing state, or just so moist, that should you take a portion of the soil in your hand, and rub it, and it comes clear off without leaving a muddy impression, it is sufficiently wet; but when the plants increase in strength, give water a little more freely. When the flowering season is over, place them on a shelf in the greenhouse until November; refresh them once or twice with water whilst on the shelf.

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#### ARTHROPODIUM CIRRATUM.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

#### ASPHODELIÆ.

Native of New Zealand, 1821.—Propagation, division.

This is a plant of great beauty, and as it requires but little attention in its cultivation, should not be omitted in any collection. It grows well in light loam and leaf soil, equal parts, with a little sand. As soon as the plant has done flowering, shake all the old soil from the roots, and repot in No. 16, in which it will bloom freely. After potting, place the plant in a shady situation in the flower-house for a short time; when well rooted remove

near to the glass: it must remain throughout the year in the flower-house, except during the period of blooming.

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### EUPHORBIA SPLENDENS.

*Class*, DODECANDRIA.

*Order*, TRIGYNIA.

#### EUPHORBIACEÆ.

Native of the Isle of France, 1826.—Propagation, seeds and cuttings.

This charming stove plant is of easy culture. It grows well in any rich light soil, producing its flowers in every month of the year, if kept in the flower-house; but I think a mass of blooms preferable to a few, although in constant flower. To have it in full blossom this month, remove the plant in March from the flower-house into the greenhouse for about three weeks, then replace it in the flower-house, and a vigorous growth will immediately take place: this prepares it for a numerous show of flowers. When in blossom, remove it into the conservatory; let it remain there about two months, and a similar effort will be made to the former when again placed in heat: with this treatment you keep a fine bushy plant.

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GARDENIA FLORIDA, FLORA PLENA,  
FRAGRANS.

*Class*, PENTANDRIA.

*Order*, MONOGYNIA.

RUBIACEÆ.

Native of China and East Indies.—Propagation, cuttings.

Mr. Smithers, who succeeds in the cultivation of this fragrant plant much better than I have seen elsewhere, gives the following instructions. Early in the spring take large cuttings, with a little of the old wood attached, plant them in pots half filled with potsherds, the remainder with peat soil and cally sand mixed, then put the cuttings under a hand or bell-glass in the cutting frame, from where there is a gentle bottom heat; when struck root, pot off into small pots in the same kind of compost in which they were raised, and place them in the plant stove; shift them as they fill their pots with roots during the summer. Early in February following shift them into No. 24, in which pots they are to bloom. When they have ceased flowering, shift again into No. 16, and the following season into No. 12, and so on until they are too large for your house; then throw the old plants away. Never shake the soil from the roots, but shift them with the ball entire.

Give a good supply of water when in a growing state, but withhold it in winter, only watering them when the mould is dry.

Mr. Smithers prefers plants of three years' growth to older ones. In the month of June, when I saw the plants, they were covered with blossoms.

*Gardenia fragrans* requires the same treatment.

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GESNERIA, SINNINGIA, GLOXINIA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMA.

GESNERIÆ.

Native of South America, &c.—Propagation, seeds, cuttings, division, leaves.

These delightful genera all grow and bloom well with the same treatment: I have therefore classed them together. In January, shake the soil from the roots and repot them in the following compost: loam, leaf mould, and dung, with about one-sixth part rough sand; mix all together; plant in pots proportionable to their size; put them into the flower-house; use water sparingly whilst they are beginning to grow, but give a good supply when they are in full vigour. As they fill their pots with roots, shift into the next size. As they come into flower, place them in the warmest situation in the conservatory, where they will continue to blossom for some time. When done flowering, be cautious with water, and allow the stems to die away gradually. When they are in a dormant state, place them on the back shelves of the greenhouse until November, then remove them into the flower-

house, but withhold water until you repot them, then proceed as before.

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HIBISCUS ROSA SINENSIS, VARIETIES OF.

*Class*, MONADELPHIA.      *Order*, POLYANDRIA.

MALVACEÆ.

Native of the East Indies, 1731.—Propagation, cuttings.

In April, shake part of the old soil from the roots of the plants, and repot them in the following compost: two parts loam, one part dung, one bog, with about one-sixth part rough sand. Pot in pots proportionate to the size of the plants; when potted give them a gentle watering, and shorten the branches a little, or, if large enough, cut to within three inches of the old wood; place them on the tan pit in the flower-house; often refresh them with water over their heads, and give it at their roots as required, but do not let the soil get soddened. When in flower, remove them into the conservatory, and they will continue to bloom for two or three months. Remove them from the conservatory in September, and place them on the back shelves of the flower-house, giving them but little water until you wish to bring them forward again. This treatment is necessary to insure a fine bloom at one time. They may be

kept continually in a growing and blooming state, but the blossoms will be but few, whereas with the above treatment you will have an abundant blossom.

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MESEMBRYANTHEMUM.

*Class*, ICOSANDRIA.      *Order*, DIPENTAGYNIA.

FICOIDEÆ.

Native chiefly of the Cape of Good Hope.—  
Propagation, cuttings.

This is a numerous genus, and, when grown to perfection, presents a brilliant appearance: the most showy of the varieties are spectabile, Howarthia, grandiflora, stellata: these with many others are well worth the little attention required on them. Strike cuttings early in the spring, pot them off when rooted into No. 60, and shift them into No. 48; when they have filled their pots with roots, shift again into No. 32, in which pots let them remain for flowering. Pot in rich light soil, with a good drainage at the bottom of the pots; keep them in the greenhouse until they come into flower, when remove them into the conservatory.

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TROPÆOLUM CANARIENSIS.

*Class*, OCTANDRIA.      *Order*, MONOGYNIA.

TROPÆOLEÆ.

Native of the Canaries.—Propagation, seeds and cuttings.

This beautiful twiner is hardy enough planted

out in June, and will cover an immense space if the plants are strong when turned out. It however is deserving of a little care for the conservatory. Early in March sow the seeds, two in a pot, using No. 60, place them in a gentle heat, and when the seedling plants are about six inches high, remove them into the greenhouse, placing them under a hand-glass for a few days, until they will bear the greenhouse; as soon as this is effected, remove them from under the glass and pot them in No. 8, in the following compost: two parts yellow loam, one part dung, with a little rough sand. Train the plants to wire globes, ellipses, fans, &c., or to stakes about three feet in height, placing the stakes round the edge of the pot: in this way they produce a fine effect among other plants.

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### CLINTONIA PULCHELLA.

*Class*, MONADELPHIA.      *Order*, PENTANDRIA.

#### LOBELIACEÆ.

Native of Columbia.—Propagation, seeds.

SIR,

In compliance with your request, I transmit you the treatment of the above plant as practised by me.—In September, I sow the seeds in equal parts of strong loam, dung, and cally or river sand, the compost being rather clotty, but not larger than a pea, as it allows the water to pass off freely and



prevents the plant from damping off, which they are very subject to do in winter if any stagnation occurs. Having drained my pots well, I fill with the above compost, making a smooth surface on which to sow the seed ; I do not cover it, but give a gentle watering, and place the pots in a frame, which I keep rather close until the seed vegetates, or, if in the greenhouse, I lay a piece of glass on the top of the pot ; I sprinkle the surface as I see it dry until the plants appear, which are only like small grass ; they must be thinned out to five or six in a pot. By degrees I harden them to the open air, where they remain until the appearance of frost ; they then are removed to a shelf in the greenhouse near to the glass, the pots being set a short distance from each other ; great care is necessary not to over water them. As early in the spring as practicable, inure them to the open air, placing the pots on the south side of a wall, where they will be sheltered from the wind and receive the full benefit of the sun. They will make but little progress for some time, but when they commence growing they advance very rapidly, and will require to be shifted as they fill their pots with roots, using the same soil with less sand. They should be occasionally watered with dung water. In this situation they remain exposed to all weathers, care being taken to tie them to stakes, until they are in bloom. It will



be necessary to sow seed in the spring for a succession of blooming plants.

York.

W. BURNET.

### ZICHIA GLABRATA, TRICOLOR.

Natives of Australia.

Like most of the Australian plants, they require to be potted in sandy, turfy peat, to have the pots well drained, and to be placed as near the glass as practicable, so as to be out of the reach of the frost during winter.

W. MAY,

Leaming Lane,

Bedale, Yorkshire.

### LECHENAULTIA FORMOSA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

GOODENOVIÆ.

Native of New Holland, 1824.

The following mode of treatment of this handsome plant, is that adopted by Mr. Falconer, gardener to R. Palmer, Esq., of Cheam, Surrey. The soil in which it is grown is taken from a heathy common, from two to four inches deep; when used, it is broken and pulverized with the hand, leaving a good proportion of the fibrous matter contained in the soil, to which is added one third of silver sand.

It is propagated in the usual manner for heaths,

&c., and when rooted is potted in small 60 pots, and as it advances in growth, is repeatedly shifted into larger sized pots. The lechenaultia delights in an airy situation fully exposed to light: the place, therefore, in which it should be kept from the latter end of September to the middle of March, is on a shelf along the back wall of the greenhouse, so high that the top of the plant may be within fifteen inches of the glass, and in mild weather the lights of the house should be let down and the plant freely exposed. When kept on the stage at a distance from the glass among other plants during winter, it invariably assumes a sickly appearance, and the points of the young shoots become mouldy and damp off. It may be brought to flower from March to August, but its season of greatest beauty is from March to the latter end of June. As soon as the blossom buds appear in the autumn, they are carefully picked off and so continued as they put out during the winter months until the middle of February, after which time they are left to bloom. As the flowers are produced at the points of the shoots, by depriving them of the flower buds, it induces a more abundant supply of blossom-bearing branches, and as the season advances will give a rich and beautiful display of bloom. Great attention should be paid, when a fine specimen is desired, that its small and delicate branches should be supported, that a free current of air should pass through them,

otherwise the weight of its numerous blossoms will crowd and depress the branches, to the great injury of the foliage and general healthy appearance of the plant. About the middle of March, as the blossoms expand, the rays of the sun will become too powerful; it should then be removed from its lofty situation to the front of the greenhouse, and so placed that it may have all the advantages of light and air without being exposed to the direct influence of the midday sun. About the middle of July, the plant is wholly divested of its flowers, together with any decayed wood and leaves, and shifted into a larger sized pot. In August it should be placed out of doors, where it can have the rays of the afternoon sun, and care should be taken that it is protected from heavy rains, but due attention should be paid that it has a regular supply of water. If it is attacked by that pest of the greenhouse, aphides, it should then be fumigated with tobacco, and if, unfortunately, they should have been unnoticed until the excretion of honey-dew is become apparent, after fumigating, the pot should be laid on its side and the plant well dusted with sulphur, then placed in the shade for a few days and afterwards well watered with a syringe.

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## JULY.

## GREENHOUSE.

Give plenty of air at all times ; attend to watering the plants left in the house, giving a good supply to all which require it. Syringe every evening.

In this month a general striking of greenhouse cuttings will be necessary to keep up a succession of plants. See Directions for striking Cuttings, Page 8.

## CONSERVATORY.

As recommended last month.

## FLOWER-HOUSE.

Many of the cuttings of last month, if duly attended to, will by this time have struck root ; pot off such into soils suitable to the several varieties.

Air, water, and syringing as last month.

## PLANTS COMING INTO FLOWER.

<i>Alpinia nutans.</i>	<i>Celosia cristata.</i>
<i>Alstræmeria ligter.</i>	<i>Clethra arborea.</i>
<i>Balsamina hortensis.</i>	<i>Clitoria ternata.</i>
<i>Browallia elongata.</i>	<i>Gomphrena globosa.</i>

Lobelia propinqua, azu-	Ruellia ciliata.
rea, grandiflora, spe-	Serissa foetida.
ciosa, Millerii.	Anigozanthos speciosa.
——— Heterophylla.	Barringtonia speciosa.
Mimosa.	

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#### ALPINIA NUTANS.

*Class*, MONANDRIA.

*Order*, MONOGYNIA.

SCITAMINEÆ.

Native of East Indies.—Propagation, division.

This plant must be kept in constant growth in order to bring it into flower. The young plants, if strong ones, should be potted three in a pot, using No. 8 size, in the month of May, and preserved in a growing state until October, then shifted into No. 6, and plunged up to the rim in the tan; they will grow vigorously, and flower about this time the summer following. A great number of suckers are generally produced from the root; these should be cut away as they appear. When the flowering season is over, place the plant again in the flower-house, allowing the old stems to remain until the following May, at which time each plant will have made a strong shoot, then cut away the old stem and any buds which may appear in the roots. Repot as before in the following soil: two parts loam, one part dung, one bog soil, with about one sixth part rough sand.

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## ALSTRÆMERIA LIGTER.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

AMARYLLIDÆ.

Native of Peru.—Propagation, division.

This fine little plant is worthy a place in every stove. To have it in bloom this month, repot it early in May, in compost consisting of two parts bog soil, one part peat, one yellow loam, one rotten wood, one fourth cally sand; then give a good watering and place the pots in the warmest part of the flower-house near to the glass; continue to give a plentiful supply of water while they remain in this situation. When removed into the conservatory, the plants must be placed in the warmest part of it. As soon as the flower indicates the least decay, remove the plants into the flower-house; keep them in a growing state until the beginning of December, when withhold water until May, then proceed as before.

This dormant season is requisite for its blooming: were it not allowed a season of rest, it would not flower.

## BALSAMINA HORTENSIS.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

BALSAMINÆ.

Native of East Indies.—Propagation, seeds.

On or about the 20th of February, sow the seed in any rich light soil. Place the seed pots in a frame where there is dung-heat of about 75°, give



a gentle watering as soon as the plants appear; admit a little air early on fine mornings, but on dull days, not until about noon. Always shut up early, and sprinkle the plants with water of the same temperature as the air in the frame. When the plants are about one inch in height, pot them off, one in a pot, in No. 60, taking care that the soil is of the same warmth as that from which they are removed, that they may not receive a check from cold at the roots; and this should be observed in all successive shiftings: place them in the same degree of heat as soon as they are potted. When the roots have filled the pots, shift into No. 48, and continue shifting until they are in No. 6, which sized pots they will fill by July, if kept in the heat above recommended: do not allow the flower buds to expand, but pinch them off as they appear, until you wish the plants to bloom: when in bloom remove them into the conservatory. Whilst they are in the frame, air must be given to them freely, and they should always be kept as near to the glass as possible.

**WATER.**—This plant is of a very succulent nature, yet owing to its rapid growth, it requires a great deal of water: do not, however, keep it always wet, but let it want water before you give it any, then give an abundant supply: water occasionally with dung-water.

**SOIL.**—Two parts yellow loam, one part dung;

let this be used in every shifting, and let it be as rough as convenient.

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### BROWALLIA ELONGATA.

*Class, DIDYNAMIA. Order, ANGIOSPERMA.*

SCROPHULARINÆ.

Native of Peru, 1768.—Propagation, seeds.

Sow the seeds early in March: as soon as the young plants are one inch high, pot in No. 60, one in each pot. Use the following soil: one part dung, one yellow loam, one leaf soil, with about one sixth part rough sand. If this plant can be grown in frames as directed for balsams, so much the better; but if this cannot conveniently be done, it will succeed in the flower-house. If the lead of each shoot be pinched off when it has attained the height of two feet, it will form a fine compact bush. Shift in succession, as recommended for the balsam; water occasionally with manure water.

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### CELOSIA CRISTATA.—THE COCKSCOMB.

*Class, PENTANDRIA. Order, MONOGYNIA.*

AMARANTHACEÆ.

Native of Asia, 1570.—Propagation, seeds.

On or about the 20th of February, sow the seeds in rich light soil; give a gentle watering, and place the pots in dung heat at about 75°. As soon as the seedlings are about an inch in height, pot them

off into No. 48, four plants in a pot : place them in heat as before, giving a good watering.

AIR.—Admit freely on fine days early in the mornings ; shut up by three in the afternoon, when sprinkle the plants with water of the same temperature as the air in the house. Let them remain in these pots until they show their heads of flowers, then select those which have the boldest and most compact combs, part them from the others, repot them in No. 48, singly ; as soon as they have filled these pots with roots, shift them into No. 32, and continue to shift them as they fill each pot, until they are in No. 12, in which let them remain. When they are full grown, remove them into the conservatory.

This plant requires much water when in full growth, and to be often sprinkled over the head when it is open, but as soon as the comb is compact, the leaves only should be sprinkled ; water often with dung water.

SOIL.—One part brown loam, one horse droppings, one cow dung, one bog soil. In this compost, it will attain to a large size, if grown in a dung heat at about  $75^{\circ}$ , and duly attended to with regard to air, and covering up in the evening. Always place the plants as near to the glass as possible, otherwise they will grow weak.

They may be grown in the flower-house, or in a

vinery, if treated as above directed, but not to the same degree of perfection.

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### CLETHRA ARBOREA.

*Class*, DECANDRIA.

*Order*, MONOGYNIA.

#### ERICEÆ.

Native of Madeira, 1784.—Propagation, cuttings.

This beautiful greenhouse tree is of easy culture. It requires the treatment of other greenhouse plants. Pot in light loam, and always confine the roots in small pots, in proportion to the size of the head of the plant; water with dung water. With this simple treatment, it will flower in great profusion once in two years; it exhausts its sap with blooming, and is not able to mature flower-buds the succeeding summer. I have had plants every shoot of which has produced a bunch of blossoms. If kept in large pots, it grows too freely to bloom much.

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### CLITORIA TERNATA.

*Class*, DIADELPHIA.

*Order*, DECANDRIA.

#### LEGUMINOSÆ.

Native of East Indies, 1739.—Propagation, seeds.

A lovely blue flowering plant, requiring the heat of the flower-house. It succeeds well in peat with a little cally sand. It may be moved into the conservatory when in flower.

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**GOMPHRENA GLOBOSA.—GLOBE AMARANTH.***Class*, PENTANDRIA.*Order*, MONOGYNIA.

## AMARANTHACEÆ.

Native of West Indies and Mexico, 1714.—Propagation, seeds.

Sow the seeds early in March, and treat them as the cockscomb, using water with a little caution, and potting in the following soil: one part leaf soil, one loam, one dung, with a little rough sand.

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**LOBELIA PROPINQUA, AZUREA, GRANDIFLORA, ETC.***Class*, PENTANDRIA.*Order*, MONOGYNIA.

## LOBELIACEÆ.

Native of South America, &c.—Propagation, seeds, suckers, cuttings.

In the month of October, or early in November, go over all the plants, and take up the suckers that are strong: pot them in rich light soil, in No. 48 size pots; give them a good watering, and set them on the north side of a wall or hedge, where they will not receive much sun. Here let them remain until the latter part of November, then remove them into a cold frame, giving them all the air possible, by drawing off the lights for the whole day, and leaving them off during the night, unless there is appearance of frost, when cover up the frame with mats or straw. Keep them in this situa-



tion until the beginning of January, at which time shift them into No. 32.

**SOIL.**—One part mud out of a stagnant pond which has been collected and laid one year to meliorate, one part loam, one dung. In the pond soil the plants produce the finest coloured blossoms, but do not grow so large as when they are grown in one part loam mixed with it. After they are shifted they must be placed in the flower-house, or early vinery, as near to the glass as possible. Give an abundance of water, as these plants succeed well in places of shallow water. As they fill their pots with roots, keep shifting them until they are in No. 8. In April, let the plants be removed into the greenhouse, and from the greenhouse into the open air about the 20th May. As they advance in growth, the flower stems should be tied to stakes. They may now be removed to the steps, or in front of the conservatory, where they have a brilliant effect if well supplied with water.

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#### LOBELIA HETEROPHYLLA.

Native of Van Diemen's Land.—Propagation, seeds, cuttings.

This fine blue flowering plant is one of the loveliest of the genus. Mr. Paxton classes it among the annuals, whilst Mr. Loudon's opinion is that it is biennial. I am inclined, from what I have observed of it, to agree with Mr. Paxton.



Sow the seeds as soon as they are ripe; place the pot in which they are sown on a shelf in the greenhouse, near to the glass; give a little water with a fine rose as it appears to require it: here let them remain until January, then pot off the plants, one in each pot, in No. 60; then place them in a gentle dung heat to assist them in obtaining a good root; when this is accomplished, they may be removed into the flower-house, placing them near the glass; this hardens the plants for the greenhouse, into which let them be taken; when hardy enough to grow well there, they may be shifted into No. 12.

SOIL.—Two parts loam, one part dung, one leaf mould, with about one sixth part rough sand. Let the plants be trained to stakes set about four inches apart, round the edge of the pot. They will flower this month. This *Lobelia* should be in the possession of every lover of flowers; it is to be procured at most of the nurseries, at a low price.

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MIMOSA SENSITIVA.—SENSITIVE PLANT.

*Class*, POLYGAMIA.

*Order*, MONÆCIA.

LEGUMINOSÆ.

Native of Brazil, 1648.—Propagation, seeds.

Sow the seeds early in February, and place the pot into a dung heat of about 75°; as soon as the plants are two inches high, pot them into No. 60, one in each pot, using the following soil: one part

leaf, one bog soil, one peat, and one cally sand. Keep them in the dung heat until they have made fresh roots, when remove them into the warmest part of the bark bed in the flower-house; shift them as they fill their pots, until they are in No. 32. This plant does not require much water.

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RUELLIA CILIATA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMA.

ACONTHACEÆ.

Native of the East Indies, 1806.—Propagation, cuttings.

This charming little plant, which is too much neglected, and but seldom seen except in nurseries, commences blooming in May, and continues until September. The soil most suitable for its growth is two thirds peat, and one third maiden loam. The proper time for propagating it is in March, making choice of the young shoots, with a little of the last year's wood. Plunge the pot in a dung bed with no bottom heat; as soon as the cuttings are rooted, pot them off in thumb pots, and keep pinching off the end of the shoots to keep the plant bushy, which should never be above a foot high. It is very subject to damp, and should be kept in a dry airy part of the greenhouse. It should be watered with great care.

G. EDWARDS,  
Layrthorpe, York.

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## SERISSA FÆTIDA, FLORA PLENA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

## RUBIACEÆ.

Native of Japan, 1687.—Propagation, cuttings.

This little under shrub is of easy culture, requiring but little attention. It grows well in any light rich soil. It must be kept in the flower-house, except when in full bloom, when it may be removed into the conservatory for a short time.

This plant is considered a greenhouse plant, but it amply repays for the little room it occupies in the flower-house, by the greater abundance of bloom.

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ANIGOZANTHOS SPECIOSA.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

## HÆMODORACEÆ.

Native of New Holland.

This is an exceedingly beautiful variety; the flowers are produced on much branched panicles, with a long upright stem; the flowers are green with a scarlet calyx or base; the two colours blended together have a most singular and pleasing effect. What adds much to the value of the plant is, that it is a very rapid grower; it requires the protection of the greenhouse in winter: during the time it is coming into blossom, place it in a cold pit to prevent the flower-stem from being drawn

up too high. This is a plant we strongly recommend for every greenhouse. It also blooms well in the open border during the summer months. It grows best in equal parts loam and peat.

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### BARRINGTONIA SPECIOSA.

*Class*, DIADELPHIA.      *Order*, PENTANDRIA.

MYRTACEÆ.

Native of the East Indies, 1786.—Propagation, cuttings.

A noble plant, with fine shining leaves and most beautiful purple and white flowers. It attains the height of ten or fifteen feet before it blooms.

The heat of the house in which it is placed should vary from 50° to 60° during the winter, and should be very dry. It should have no more water than will keep its roots fresh and healthful : in the beginning of May, heat and moisture must be increased and continued until October. The chief point to be attended to in growing and flowering plants is to give them a season of rest, by keeping them cool and very dry during winter : they are then prepared to put forth when the growing season commences, which cannot be the case if they are always kept in an excited state throughout the year.

The soil in which the *Barringtonia* flourishes is strong rich loam, with a portion of rough sand, potted in March. It ought never to be allowed to get pot-bound, nor should it ever be put into a pot that it would not fill with roots in six months.

This plant strikes freely from cuttings of the half ripened wood, in a good bottom heat, one cutting in a pot. As the pots fill with roots, shift into the next size, and keep them in the same heat until the young plants are about one foot in height, when place them in the stove, and treat them as above directed.

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## AUGUST.

### CONSERVATORY.

Let the borders of the conservatory be forked up when the roots are not at the surface; then give a gentle watering; afterwards rake them smooth. Keeping the borders thus stirred, allows the air to pass freely amongst the young fibres.

**HEAT.**—Fire-heat is unnecessary, except to dry up the damp when there is a continuance of dull weather.

**AIR.**—Give as much as possible during the day, and also leave air all night.

**WATER.**—Syringe two or three times a week;

do this on fine mornings ; attend to watering plants in pots and tubs, and also the borders, when they require it.

### GREENHOUSE.

**AIR.**—Give as much as you possibly can both day and night.

**WATER.**—Attend to this every day ; syringe occasionally on fine mornings. Sow seeds of such annuals as you wish to flower in the spring. The plants which are in the open air will require regular attention ; some it will be necessary to shift, others to repot ; but as ample directions are given on this head for each genus treated of in this work, it is unnecessary to repeat them.

### FLOWER-HOUSE.

**HEAT.**—Should the latter end of the month be very cold, put on a little fire every evening.

**AIR.**—Admit it freely every day.

**WATER.**—Syringe once or twice a day. Give such plants as are growing fast a good supply of water, but delicate ones require to be kept moderately dry, otherwise they are very apt to die from too much moisture.

### PLANTS COMING INTO FLOWER THIS MONTH.

<i>Angelonia salicariæfolia.</i>	<i>Brugmansia suaveolens.</i>
<i>Aphelandra cristata.</i>	<i>Brunsvigia Josephinæ,</i>
<i>Astelma eximium.</i>	<i>falcata.</i>
<i>Bouvardia triphylla.</i>	<i>Campanula pyramidalis.</i>



Clintonia pulchella.	Phœnocomma prolifera.
Diplacus puniceus.	Polianthes tuberosa.
Hedychium coronarium,	Russelia juncea.
Gardnerianum.	Statice arborea.
Lagerstrœmia indica.	Syphocampelis bicolor.
Phlox Drummondii.	Trevirana coccinea.

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ANGELONIA SALICARIÆFOLIA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMA.

SCROPHULARINÆ.

Native of South America, 1818.—Propagation, division.

This beautiful light blue flowering plant is deserving of a place in every collection. Like the *Astrœmeria* it requires a season of rest: the proper time to repot it is in the month of March. Shake off all the old soil from the roots, and pot in No. 24, in the following compost: one part bog, one leaf, one peat, one cally sand. Drain the pot well, then place it in the flower-house; give but a little water until it is above the soil in the pot. When the flowering season is over, and the herbage is perfectly ripe, be cautious with water until the following March, when repot as before.

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## APHELANDRA CRISTATA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

ACANTHACEÆ.

Native of the West Indies, 1733.—Propagation, cuttings.

This is a charming scarlet flowering stove plant. It thrives well in two parts loam, one part leaf soil, with a little rough sand.

As soon as the flowering season is over, place the plant in the warmest situation in the flower-house. When the young shoots are about one inch long, turn the plant out of its pot, remove a part of the ball, and repot into a size smaller pot; in March following, shift it into the next size. If your plants are young, shift as they fill their pots with roots, until they are in pots proportionate to the size of the plants, then proceed as with the old plants. Drain the pots well.

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## ASTELMA EXIMIUM.

*Class*, SYNGENESIA.      *Order*, SUPERFLUA.

COMPOSITÆ.

Native of the Cape of Good Hope, 1793.—Propagation, cuttings.

This is a fine greenhouse plant, flowering in the greatest profusion this month. It grows well in two parts loam, one part leaf soil, with a little rough sand. Repot early in the spring. Treat it as other greenhouse plants.

Strike cuttings of this plant in the greenhouse without glass; they are liable to damp off.

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BOUVARDIA TRIPHYLLA AND SPLENDENS.

*Class*, TETRANDRIA.

*Order*, MONOGYNIA.

RUBIACEÆ.

Native of Mexico, 1794.—Propagation, cuttings.

A low shrub, producing long scarlet flowers in the autumn months. It grows well in rich light soil. In March shake off part of the old mould from its roots, and repot in as small a pot as the ball will admit of; shift into the next size as the plant fills its pot with roots. Let it be placed in the open air with the other greenhouse plants. Whilst it is in the house, keep it as near the glass as possible.

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BRUGMANSIA SUAVEOLENS.

*Class*, PENTANDRIA.

*Order*, MONOGYNIA.

SOLANÆÆ.

Native of Peru, 1733.—Propagation, cuttings.

W. K. Petrick, who succeeds in blooming this fragrant shrub to great perfection, gives the following as his mode of culture. Having an old established plant that has been wintered in the greenhouse, early in March he turns it out of the pot,

shakes all the soil from the roots, and cuts away a part of the strongest roots, then pots it in as small a pot as the root will permit; he then places the plant in any forcing house, shifts, as the roots appear through the hole at the bottom of the pot, into the next size, and continues to do so until the plant is in a pot of a size corresponding to the head of the plant. He prunes the branches at the same time he does the roots, leaving about four inches of the last year's wood to each shoot, unless the plant be meant to grow taller, when he leaves them to attain the size he wishes them to be. He recommends, when the plants are young and in small pots, shifting them into the next size pot at the time the old plants are repotted, and pursues the same method, as to shifting, &c., with them as with the old plant.

**WATER.**—Give an abundance when the plants are in vigorous health; when they are growing luxuriantly I withhold water for a few days, this checks the growth, and causes the flower-buds to appear in great abundance, after which time you cannot give them too much water. Occasionally water with dung water.

**SOIL.**—A rich maiden loam. Drain the pots well.

Keep the plants clear from the green-fly.

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## BRUNSVIGIA JOSEPHINEA, FALCATA.

*Class*, HEXANDRIA.      *Order*, MONOGYNIA.

## AMARYLLIDÆ.

Natives of the Cape of Good Hope, Josephinea, 1814 ; falcata, 1795.—Propagation, offsets.

These fine flowering bulbs will blossom much stronger if they be grown in large pots, and supplied with plenty of water whilst in a growing state. When the foliage is sufficiently ripe, withhold water altogether, and place the pots on a shelf in a warm shed or the greenhouse, in which situation they must remain for three months at least ; then remove them into a lively heat, and give them abundance of water : this enables them to put out strong flowering stems.

As soon as the blossom is decayed, turn the bulbs out of the pots ; shake off most of the soil from amongst the roots : be careful in doing this that you do not break any of the roots, then repot the plants and place them in heat, where let them remain until the foliage indicates decay ; then withhold water, and keep them in a dormant state, as recommended above.

SOIL.—Peat, strong yellow loam, and decomposed cow-dung, and a little rough sand. It is requisite for the pots to be well drained.

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## CAMPANULA PYRAMIDALIS.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

## CAMPANULACEÆ.

Native of Europe, 1596.—Propagation, seeds, cuttings of roots, and division.

The finest specimens of this plant are obtained from cuttings of the roots. Early in January, I turn the old plant out of its pot, and cut the root in pieces about one inch in length. Set a number of these in a pot, and place them either in the flower-house or a cutting frame, which is preferable: give a good watering. As soon as they have struck root, pot them off into No. 60, one in a pot; place them in heat for a short period: when they are well established in these pots, remove them into the greenhouse for a short time, until they are sufficiently hardy to be removed into the open air. Shift them during the summer, until they are in No. 24; in these pots let them remain all the winter. During that season, keep them in a cold frame. In the beginning of February, shift them into No. 16, and place them in the flower-house. When these pots are filled with roots, pot into No. 12, and lastly into No. 8, or 6, if your plants be very strong. From the time they are shifted into No. 16 they require abundance of water: the last shifting need not take place until the early part of May, when they may be put in a cold frame until inured to the open air.



Soil.—Equal parts loam and dung.

With the above treatment I have had plants nine feet in height.

This plant makes a fine show in the conservatory, and also serves as a charming contrast mixed among the lobelias in the front of the house.

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DIPLACUS PUNICEUS.

Propagation, cuttings.

Treatment, see *SYPHOCAMPSELIS BICOLOR*.

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HEDYCHUM CORONARIUM, GARDNERIANUM.

*Class*, MONANDRIA.

*Order*, MONOGYNIA.

SCITAMINEÆ.

Natives of the East Indies; Coronarium, 1791; Gardnerianum, 1819.—Propagation, division.

Mr. W. West, who has succeeded in flowering this plant to an extraordinary degree of perfection, gives the following as his mode of treatment:—

Early in February, I turn the plants out of their old pots, shake off all the soil from the roots, and cut off the weakest eyes. I then pot in No. 12 pots, in one part dung and two parts loam, well mixed together; the plants are then placed in the warmest part of the vinery. When they have made strong stems, I give them abundance of water. As soon as they have filled their pots with

roots, I shift them into No. 6, and occasionally water them with dung water, when they have filled their pots with roots. When the flower stems are about to shew for bloom, I never syringe the foliage, for at such times the water often lodges in the axillas of the stems, and causes them to decay.

By pursuing the above treatment I have had a succession of flowers for a great length of time. During the last season, plants blossomed early in the summer; these stems I cut away, and others which were pushing out produced a good autumn blossom.

During the winter months they should be kept in a dormant state, either in the greenhouse or some similar situation.

The *Hed. Gardnerianum*, which is the finest of this genus, is deserving of a place in every collection. I bloomed this plant under the following treatment to great perfection:—In February, I shook off the old soil from the roots, and potted it in No. 12, in a compost of dung, loam, and bog soil, with a little rough sand. I placed it in a heat of about 65°, gave it plenty of water at the roots when in a quick growing state, shifted into No. 8 in June, and in August it blossomed. The scent of the flowers is powerfully fragrant and very agreeable. As soon as the flowers were all decayed, I placed it in a common greenhouse, where it remained

until February. I give but little water during the winter months.

This genus requires to be matured by a quick growth.

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### LAGERSTRÆMIA INDICA.

*Class*, POLYANDRIA.

*Order*, MONOGYNIA.

#### SALICARIÆ.

Native of the East Indies, 1759.—Propagation, cuttings, suckers.

Mr. J. Rheynolds, who has flowered this fine stove shrub with great success, treats it in the following manner. Having a young healthy plant, in the early part of March, he shifts it into the next size pot; as soon as this pot is full of roots, he continues the same process of shifting until it is in No. 16, in which pot he allows it to remain during the winter. In the early part of the ensuing March, he turns the plant out of its pot, shakes off part of the old soil from the roots, and repots in No. 8, in which it remains to blossom.

**WATER.**—Supply it moderately in the summer, but give it only a little in the winter. Place the plant in as cold a situation as you have in the flower-house; but from March, until it flowers, let it occupy the warmest part of the house. In preparing old established plants, shake most of the old soil from the roots, and pot in as small pots as

the roots will admit of. Shift as they fill their pots with roots.

SOIL.—Brown loam.—Drain the pots well.

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### PHLOX DRUMMONDII.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

POLEMONIACEÆ.

Native of N. America.—Propagation, seeds.

This beautiful annual has assumed a grand feature under the management of Mr. Brown, who gives the following directions:—Sow the seeds in August; pot them off into No. 60, place them in a gentle heat until well rooted, then let them be removed into the greenhouse, and placed near the glass, watering them occasionally. Early in March shift them into No. 48, and continue shifting them until July, when remove them into the open air, and let a free circulation of air be given to them, quite round the plants, in every situation and at all times.

SOIL.—Equal parts leaf and loam, with the addition of a little sand.

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## PHŒNOCOMA PROLIFERA.

*Class*, SYNGENESIA.*Order*, SUPERFLUA.

COMPOSITÆ.

Native of Cape of Good Hope, 1789.—Propagation, cuttings.

A charming plant, well worthy of every collector's attention, on account of the beauty both of its foliage and flower. It thrives well in peat with a little cally sand ; it should be kept in the greenhouse all the year. Repot the plant in March ; remove a little of the old soil, and if it be in a flourishing condition, shift it into the next sized pot.

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## POLYANTHES TUBEROSA.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

HEMEROCALLIDÆ.

Native of the East Indies, 1629.—Propagation, offsets.

This is a finely scented plant. It requires to be potted in March in two parts loam, one part leaf mould, with a little rough sand, and placed in the flower-house, where it must remain until it is about one foot in height, when remove it into the greenhouse, place it in the warmest part, near to the glass. It should have a good supply of water when in a vigorous growing state.

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## RUSSELIA JUNCEA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

SCROPHULARINÆ.

Native of Mexico. — Propagation, cuttings, suckers.

Mr. J. Edwards, Nurseryman, Layerthorpe, near York, who cultivates this lovely plant to great perfection, adopts the following method of growing it. He strikes cuttings in July, which, when rooted, he pots into No. 90, and as they fill them with roots, shifts them into the next size. He considers it a bad practice to over pot the plants. If the shifting be attended to as the plants require it, in July following they will be established in No. 6, in which size pot they are to remain for blossoming. This is a plant which requires a heat of from 60° to 65°, and to be placed as near the glass as possible.

WATER.—It should have an abundance when the pot is full of roots. Many persons, indeed, consider it to be an aquatic plant, but I find that so to treat it, before it is well established in the pot, is injurious to it; but it delights at all times in being well syringed.

SOIL.—Equal parts rich loam and peat.

This plant is grown in the greenhouse in many places; but in this situation it will never assume that commanding appearance which it will do when grown as recommended above.

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## SYPHOCAMPELIS BICOLOR.

*Order, LOBELIACEÆ.*

Propagation, cuttings.

Mr. Brown, foreman to Mr. J. T. Backhouse, of York, grows this plant well under the following treatment. Cuttings are struck in July and potted into No. 60; as soon as the pot is filled with roots, the plant is shifted into No. 48; in this pot the plant remains until the following March, then it is shifted into No. 32, and the shifting is proceeded with as the pots fill with roots, until it is in No. 12, in which size it remains during the winter. About the beginning of the ensuing March, the plant is turned out of its pot, a part of the old soil shaken from off the roots, and it is repotted in the same sized pot; it is shifted into No. 8 when it has filled its pot with roots. The plant is put out in the open air early in May; it may remain there until the first part of July; it is then taken into the greenhouse again. It grows freely, producing its flowers in abundance, and will continue to do so throughout the autumn, winter, and spring months.

SOIL.—Equal parts dung and loam.

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## STATICA ARBOREA.

*Class*, PENTANDRIA.*Order*, POLYGYNIA.

## PLUMBAGINEÆ.

Native of Teneriffe, 1839.—Propagation, cuttings.

This fine plant being a native of the South Sea Islands, growing near to the shore, is a great absorbent, and therefore delights in a moist atmosphere with some degree of warmth; at present it is considered a stove plant, but I doubt not that before long it will be found to be so hardy, that it may be grown in a greenhouse: but be it when it may, the success of cultivating it will depend on the moisture which it receives over its head, when in a growing state: it also requires the same no less freely at its roots when in a growing state, but when dormant, which should be in the dark months of winter, no more moisture will be necessary than what is sufficient to keep it from flagging.

SOIL.—Peat, loam, and white sand; the drainage of the pot must be open.

W. MAY.

## TREVIRANA COCCINEA, ETC.

(NOW ACHIMENES COCCINEA.)

*Class*, DIDYNAMIA.*Order*, ANGIOSPERMIA.

## SCROPHULARINÆ.

Native of Jamaica, 1778.—Propagation, offsets.

This elegant little scarlet flowering plant is of

singular beauty. The roots are of a curious character, having the appearance of an insect of the maggot kind. Before the middle of March, let the roots be collected together out of the several pots and the strongest of them planted in No. 60, one in each pot, in the following soil: one part dung, one leaf mould, one loam, and about one sixth cally sand; place the pots in the warmest part of the flower-house; shift as the pots fill with the roots until they are in No. 24, in which let them remain for flowering: if the plants are not of sufficient growth to be in No. 24 size pots by the end of July, let them continue in the pots in which they may be at that time, for if they are shifted later, they will not blossom in such a mass as they will if the pot be full of roots. As they come into flower, remove them into the conservatory. When the flowering season is over, place them on shelves in the greenhouse, and withhold water altogether until you re-plant them in March following. By this method much finer plants will be obtained than when three or four are allowed to grow in one pot.

There is now an addition to this genus which may be purchased at any nursery, *Achimenes longiflora*.

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## BROWNLOWIA GRANDIFLORA, ELATA.

*Class*, POLYANDRIA.*Order*, MONOGYNIA.

TILIACEÆ.

Native of the East Indies, 1820.—Propagation, cuttings.

This is a noble genus, and is very rare ; it is well worthy the greatest care of the cultivator, were it only for the fine thin delicate foliage. The flowers are produced in large racemes, which give a splendid appearance to the plant. It strikes freely from cuttings in the latter part of spring and the early part of summer. The cuttings should be planted singly in small No. 60, in equal portions of sand and peat, and placed in a frame in a gentle bottom heat, and covered with a hand glass until they are struck and have made pretty good roots. As soon as the pots are full of roots, shift and continue to do so as they require it, (keeping them in bottom heat,) until they are in large 48, at which shifting remove them into the stove, and never allow them to get pot-bound.

SOIL for this genus is equal parts very light turfy loam, turfy peat, and decomposed dung, with a little rough sand. This should be thrown up for one year previous to using, and turned several times in the course of the season. It is proper to state that no soil should be sifted, as in sifting the nutritious qualities of the soil are destroyed, and

thus the plants grown in it are prevented from ever becoming fine ones or perfect in their flowering. The pots also must be well drained.

**WATER.**—When in a vigorous growing state, this plant will require a good supply, but when at rest, which should be from October to May, it will require but little : if kept constantly excited, when the season of growth comes on it will be found very weak and sickly, and unable to produce strong shoots. All young plants must be kept as near the glass as possible, but not allowed to get turned with the sun : a little shade should be given when the heat of the sun is powerful.

When air is given in a stove, it is necessary to pour water on the paths, as the air when hot and dry, circulating over the plants, drains them of their juices, and the leaves are often burned, or blotched, or curled up, the effect of having the house too dry ; for by this the stomata, or pores through which the plants perspire, are closed up, and the plant becomes unhealthy and very often dies. The stomata being on the under side of the leaves, large drops of water are to be found there : this is the perspiration of the plants, or the exuding of their superabundant juices, and when these are carried off too fast, it causes the plants to throw off more than they can bear ; the pores then become closed up, and the leaves blotched or curled.



HEAT—during the winter, from 40° to 60°, with a dry atmosphere ; in summer from 60° to 100°, with air according to the state of the weather.

P. N. DON.

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## SEPTEMBER.

### GREENHOUSE.

As directed last month.

### CONSERVATORY.

As directed last month.

### FLOWER-HOUSE.

As directed last month.

### PLANTS COMING INTO FLOWER.

Asclepias curassavica,	Gardenia radicans.
alba, &c.	Ipomopsis elegans.
Calothamnus quadrifida.	Ixora grandiflora.
Clerodendrum fragrans.	Musa coccinea.
Combretum purpureum.	Salvia patens.
Dichorizandra Thyrsi-	Tristania Nereifolia.
flora.	

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### ASCLEPIAS CURASSAVICA, ALBA, ETC.

*Class*, PENTANDRIA.

*Order*, DIGYNIA.

### ASCLEPIADEÆ.

Native of South America, 1818.—Propagation, seeds, cuttings, and division.

These are two plants of singular beauty. The following is the treatment I consider best adapted



to bring them to perfection:—strike cuttings early in the spring, pot them off in No. 60 pots when well rooted, and shift them as they require it; they will blossom this month. They should be kept in the coolest part of the flower-house and suffered to be in a dormant state during the winter. About the beginning of the following March, let a portion of the old soil be shaken from the roots, repot them in pots proportionate to their size; shift them, when these pots are filled with roots, into the next size, then place them in the warmest part of the flower-house; they will flower in June or July: for successional bloom, let them be potted in April, May, and June, and a fine show of blossom will follow. Cut down the old shoots at the time of fresh potting them.

SOIL.—Loam, dung, and peat, with about one sixth rough sand.

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### CALOTHAMNUS QUADRIFIDA.

*Class*, POLYADELPHIA.      *Order*, POLYANDRIA.

#### MYRTACEÆ.

Native of New Holland, 1803.—Propagation, seeds, cuttings.

This shrub, from the peculiar character of its flowers and general appearance, is well worthy a place in every collection. It requires but little care, and should be treated as a common greenhouse plant. It flowers in abundance.

SOIL.—Two parts loam, one part leaf mould.  
Pot it in March.

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CLERODENDRUM FRAGRANS.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

VERBENACEÆ.

Native of China, 1790.—Propagation, suckers, cuttings.

This fine fragrant flowering shrub should not be omitted in any collection. By the following treatment I get it to blossom in the greatest perfection. I pot it in soil composed of equal parts loam, dung, and decayed wood, with about one sixth rough sand. I strike cuttings early in spring, and after potting them I shift them as they require it until they are in No. 16. They attain to the size of good flowering plants in about eighteen months. I turn out the old plants in March, and shake off a part of the soil from the roots, and repot them in the same sized pots; they will blossom this month. Prune them by cutting away, at this time, the last year's shoot to within two inches of its base. This plant requires the flower-house heat.

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COMBRETUM PURPUREUM.

*Class*, OCTANDRIA.      *Order*, MONOGYNIA.

COMBRATACEÆ.

Native of Madagascar, 1818.—Propagation, cuttings, layers.

A charming scarlet flowering climber, requiring to be grown in No. 1 size pot, or in a border in the flower-house, to have it in its greatest beauty. But as it is not in the power of every person to have it in a pit, I shall give its treatment in a pot for the use of those who wish to obtain a fine flower in winter. Young plants should be shifted as they fill their pots with roots, and be kept in a growing state when they are of a strong healthy description. Early in March, turn each plant out of its pot, set the roots at liberty, and repot it in No. 1 size pot, then train the shoots on a trellis, fan, globe, or into any other form you may wish.

Place the plant in as cool a part of the house as you can, and supply it moderately with water. In May let it be removed into the greenhouse for two months; this gives it a check and prepares it for a vigorous push of young shoots, which produce the bloom. In July replace it in the flower-house, and it will blossom in profusion in the autumn; when it is in flower, remove it into the conservatory, but do not let it remain long, as stove plants receive much injury if they are kept out of their proper temperature for any length of time at this season of the year.

SOIL.—Three parts loam, one part dung, one leaf soil, with a little rough sand. Drain the pots well.

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## DICHORIZANDRA, THYRSIFLORA.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

## COMMELINEÆ.

Native of Brazil, 1822.—Propagation, division.

This is a very attractive blue flower. It requires to be kept dormant during the winter months in the flower-house, but a little water should be occasionally given to it. In the beginning of March, turn the plant out of its pot, shake all the soil from the roots, and repot it in the following soil: two parts loam, one part leaf mould, with about one-sixth rough sand. Place it in the pit in the flower-house.

## GARDENIA RADICANS.

*Class*, PENTANDRIA.*Order*, MONOGYNIA.

## RUBIACEÆ.

Native of China, 1804.—Propagation, cuttings, suckers.

Mr. Reynolds, who succeeded in growing this plant to great perfection, gives the following directions.

Having a young healthy plant, I continue to shift it to the next size pot as it fills the former one with roots until the plant is in No. 24, in which size pot I bloom it. With respect to an old established plant, in April I turn it out of its pot, remove a part of the soil, and repot in the same size, draining the pot well. The soil I use is composed

of two parts light rich loam, one part rotten wood, with about a sixth part cally sand. I place the plant where it does not receive any bottom heat, because, from the circumstance of the roots striking downwards, any bottom heat would injure them: the situation I choose is on a shelf, or the curb of a pine pit. I keep the plant rather moist, and often syringe over the foliage. For the greater part of the year I preserve a heat of about 65°, and give but little water during the first three months, in order to allow the plant a season of rest.

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#### IPOMOPSIS ELEGANS.

*Class*, PENTANDRIA.

*Order*, MONOGYNIA.

#### POLEMONIACEÆ.

Native of North America, 1826.—Propagation, seeds.

Sow the seeds in July, and pot the young plants singly in No. 48 pots; place them in a cold frame, and shade them for a few days. As soon as they are fresh rooted, draw off the light in the morning, and when put on in the evening, let a free circulation of air draw through the frame. Protect them from heavy rains, and water sparingly. In the months of November and December, it is advisable to let the pots stand on bricks, and to have a free circulation of air, as they are very subject to damp off; in frosty nights, the frame should be



covered up with straw or mats ; and if the weather should be so severe as to require a covering, during the day remove the plants into the greenhouse, placing them near the glass, and as far from the fire heat as possible. In March, shift them into No. 32, and as soon as these pots fill with roots, shift again into No. 24, and lastly into No. 16. Let the plants be removed into the open air as early as the season will permit.

Never water over the foliage or syringe them, as that would destroy them. Before watering, be sure to see that they require it.

SOIL.—Leaf and loam, with a little rough sand.

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### IXORA GRANDIFLORA.

*Class*, TETRANDRIA.      *Order*, MONOGYNIA.

RUBIACEÆ.

Native of East Indies, 1814.—Propagation, cuttings.

This is a fine showy shrub ; its large corymbi of flowers are strikingly beautiful. It requires the heat of the flower-house, but must be placed in such a situation that its roots may not receive injury from any bottom heat ; that alone will prevent it from growing ; for, like the gardenia, its roots strike downwards to the bottom of the pot. Its best situation is an old spent bark bed.

SOIL.—Peat. The plant should be repotted as soon as it has done blooming. It requires rest,



which is easily afforded it by placing it in the coldest part of the flower-house, and only supplying it sparingly with water during the winter months. Young plants flower the most freely; strike cuttings every spring and throw the old plants away. The time for this plant commencing to bloom is in June, but, to retard it until this season, do not force it into free growth before May.

**WATER.**—It requires much of this element when in a vigorous growing state.

From MR. SMITHERS.

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**MUSA COCCINEA.**—THE PLANTAIN TREE.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

MUSACEÆ.

Native of China, 1792.—Propagation, offsets.

This charming genus is of singular beauty; its leaves alone form a fine contrast with its flowers, which are amongst the most magnificent we are acquainted with. In its treatment, it requires to be grown quickly and to be kept constantly shifted. Having a young healthy plant in the spring, shift it into the next size pot, and continue the same process until you have it in No. 6. The time of its flowering will depend upon the quickness of its growth, but if it be a fine strong sucker it will blossom in about eighteen months. Give plenty of water during the whole summer.

**SOIL.**—Equal parts dung and loam, with a little

rough sand. Let it occupy the warmest place in the flower-house.

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### BURTONIA CONFERTA.

*Class*, DECANDRIA.

*Order*, MONOGYNIA.

#### LEGUMINOSÆ.

Native of New Holland.—Propagation, cuttings.

A pretty evergreen shrub, worthy a place in all good collections.

SOIL.—Sandy turfy peat, with a small portion of decomposed horsedung and a little cally sand. The plant should be placed on a shelf as near the glass as possible, and have a free circulation of air. It is apt to spindle up, therefore pinch out the head of each shoot to keep it bushy. Give the pot a good drainage and a proper supply of water: on this depends the success of cultivation of this plant. Never allow the ball to get dry or to be soddened with water.

W. MAY.

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### SALVIA PATENS.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

#### LABIATÆ.

Native of Mexico, 1839.—Propagation, cuttings.

Place the old stool in heat early in January; by February it will have sent up from the roots strong suckers. As soon as they are strong enough, take off cuttings and place them in the cutting-frame;

in about a month these cuttings will have made good roots; pot them off in No. 60, one in each pot; pinch out the lead, and replace them in the cutting-frame or any dung heat for a time, until they are rooted, when let them be removed into the flower-house and put near the glass. Shift, as they fill their pots with roots, until they are in No. 8. About the beginning of May, place them in the warmest part of the greenhouse, and in June remove them into the open air, at which time take out the lead of every shoot, if you wish for bushy plants, and pinch off the buds of the next shoots which have pushed, leaving only two joints. Plants under this treatment make fine bushy ones, and bloom in abundance in September, October, and November. But it is desirable to have blooming plants earlier than September: those which you wish to select for this purpose should remain in No. 12 pots, and you are not to pinch off the lead of the last pushed shoots, but allow them to grow. In July you will have a profusion of blossoms by thus treating the plants, but not in so splendid a display as you would have by the former mode of proceeding.

SOIL.—Two parts loam, one part dung, with about one-sixth rough sand.

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## TRISTANIA NEREIFOLIA.

*Class*, POLYADELPHIA.      *Order*, POLYANDRIA.

## MYRTACEÆ.

Native of New Holland.—Propagation, seed, cuttings.

Treatment, see CALOTHAMNUS.

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## OCTOBER.

## GREENHOUSE.

In the early part of the month let the greenhouse be got ready for the reception of the plants, by washing the stage, trellises, &c., and prepare the plants for the house by pruning the heads of any superfluous growth, thinning out any weak shoots, dead branches, decayed leaves, &c.; wash those which are infested with the scaly insect, using a little soft soap; wash also any mould from the branches. Stir the surface soil a little. If frost appear early, remove them into the greenhouse, and place them on the stages in such order that when all are in, the general appearance may present a pleasing contrast of foliage. This will be effected by putting those which have a handsome foliage in a prominent situation. Take care to blend light and shade together in the arrangement of your plants.

WATERING—attend to when it is needed. The chrysanthemums will require much at this time to

assist them in expanding their buds, whilst others will demand but little, especially the succulent varieties. Syringe once a week, choosing fine mornings for the purpose; put on a little fire at the same time to carry off the damp.

AIR.—As the house will now be full of plants which have for several months had the benefit of a free circulation of air, let them have as much as possible, leaving the sashes open all night if the thermometer is at  $40^{\circ}$ ; but if below that, close the house, and admit air early in the morning.

#### CONSERVATORY.

Clear the house of such annuals as have begun to decay, retaining only those which are still in great perfection, as several plants in flower will now be brought in from amongst those in the open air. Go over the plants in the borders; trim and tie up such as require it, and remove all dead leaves and litter. Water such plants as appear to be dry, and examine the border that none be passed over.

AIR.—Give as much as possible every day, unless there be any cold cutting winds. Leave a little on all night when the weather is sufficiently mild.

Syringe once a week, taking care not to wet the flowers.

#### FLOWER-HOUSE.

Prepare the house for the reception of shrubs

and bulbs for forcing. Take out the old tan and fill the pit with new. Wash the rafters, flues, shelves, &c., with warm water and soft soap; this will destroy the ova of insects. About the second or third week bring in the shrubs, bulbs, &c., to force into early flower. Wash such plants as are infested with the scaly insect with water and soft soap, and syringe such as appear to have the red spider with the alkaline extract.

Syringe the plants with pure water twice a day, as directed for March. Pour water on the flues the first thing in the morning and the last in the evening.

AIR.—Admit a little every mild day, even if the sun be clouded, but do it with caution.

FIRE.—Put on just so much as will keep the thermometer from 60° to 65°.

#### PLANTS COMING INTO FLOWER THIS MONTH.

Barleria purpurea.	Justicia coccinea, bico-
Brachysema latifolium.	lor.
Gloriosa superba.	Lilium longiflorum, &c.
Chrysanthemum sinen-	Salvia splendens.
sis.	Thunbergia alata, alata
Dombeya ferruginea.	alba, fragrans, grandi-
Dracæna ferrea, &c.	flora.

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## BARLERIA PURPUREA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

## ACANTHACEÆ.

Native of the East Indies, 1814.—Propagation, seed, cuttings.

A plant of easy cultivation, requiring the heat of the flower-house. It grows well in any rich light soil, and from the freeness of its flowering should not be omitted in any collection.

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## BRACHYSEMA LATIFOLIUM.

*Class*, DECANDRIA.      *Order*, MONOGYNIA.

## LEGUMINOSÆ.

Native of New Holland, 1803.—Propagation, seed, cuttings.

The fine flowers and foliage of this plant render it worth the care of every collector. It should be kept in the greenhouse all the year.

SOIL.—Peat, with a little cally sand.

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## DOMBEYA FERRUGINEA.

*Class*, MONADELPHIA.      *Order*, DODECANDRIA.

## BYTTNERIACEÆ.

Native of the Mauritius, 1815.—Propagation, cuttings.

A dwarf shrub possessing singular beauty both in its flowers and foliage ; it blooms nearly all the summer and autumn months, but should have the advantage of the flower-house heat.

SOIL.—Peat, with a little cally sand.

## DRACÆNA FERREA.

*Class*, HEXANDRIA.*Order*, MONOGYNIA.

## ASPHODELEÆ.

Native of China, 1771.—Propagation, suckers.

This plant is well deserving a place in every collection on account of the peculiar contrast of foliage. It grows well in loam, peat, and dung.

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## CHRYSANthemum SINENSIS.

*Class*, SYNGENESIA.*Order*, SUPERFLUA.

## COMPOSITÆ.

Native of China, 1764.—Propagation, seeds, divisions, cuttings.

This beautiful plant is much valued by the admirers of Flora. The season of its blooming, which commences in autumn, and continues until it is replaced by the camellia, is not its least recommendation, though it is no less esteemed on account of its rich and many coloured blossoms, which are more particularly striking at a time when winter is robbing Flora of so many of her beauties. The following is my mode of treatment of this gay ornament of the greenhouse and conservatory.

In March I take a number of short strong suckers from each variety, I pot them in No. 60, in light rich soil, and place them in a gentle heat; at the same time I take off a number of cuttings,

insert them in pots, and put them in the cutting-frame. In about three weeks both they and the suckers will be well rooted. The cuttings I put into No. 60, one in each pot. I then put them in a gentle heat until well rooted, when I set them with the suckers in a cold frame, protecting them from frost. Give them plenty of air, to inure them to the open atmosphere. As soon as the pots are filled with roots, and before they are matted to the sides of them, let them be shifted into the next size, using light rich soil as before. Drain the pots well. In the early part of May remove them to the plant ground, if the weather is not frosty. Continue to shift until they are in No. 12, using loam and dung, equal quantities mixed well together and kept six months previous to using it. Always drain well at every shifting.

**WATER.**—This plant requires a great quantity of water, and to be sprinkled often over the leaves; in May and early in June I do this in the morning, from June to September in the evening. When the plants are well established in their pots, in which I wish them to bloom, I commence watering with dung water, and continue this until I take them into the house in October, and in some instances in November. Those which I desire to have in bloom early I remove into the flower-house, the next in succession into the greenhouse, and for the last bloom I let the plants remain out

of the house until the frost renders it necessary for them to be taken into the house. As they go out of blossom, place them in a cold frame, protected from the frost, until March. It is the practice of some cultivators not to begin propagating until May; but if fine strong bushy plants are required, March is the proper time. I obtain fine dwarf plants by striking cuttings in the beginning of June, and potting them, as soon as they are struck, into No. 40 sized pots, in which they remain to blossom. The plants from which these cuttings are taken furnish me with a late blooming stock.

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JUSTICIA COCCINEA, ETC.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

ACANTHACEÆ.

Native of S. America.—Propagation, cuttings.

A fine plant, requiring the heat of the flower-house. It grows well in two parts loam, one part peat, one decayed wood, with about one sixth cally sand.

In March I cut down the plant to within two inches of the old wood, then give a good watering and place it in the warmest part of the flower-house. As soon as it begins to grow, I turn it out of the old pot, and remove part of the ball. I repot it in a pot proportionable to its size, and shift as it requires it. It will blossom about this time.

When the flowering season is over, place the plant in the coldest part of the flower-house, give but little water until March, then proceed as before.

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SALVIA SPLENDENS.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

LABIATÆ.

Native of Mexico, 1822.—Propagation, cuttings.

This fine scarlet sage is a great acquisition to the conservatory at this season of the year.

In January, place the old stools in the flower-house to make fresh shoots for cuttings; by February these will be sufficiently strong for taking off from the plant; select for the purpose the strongest of them, and plant them several in each pot. By March they will be ready for potting off into No. 60, one in each pot, shift as they fill with roots into the next size until they are in No. 8 size, in which let them remain for blooming. When this pot is filled with roots, give the plant a little dung water once a week. Should it be desirable to bloom the plants in less pots, give dung water as soon as the pots in which they are to flower are full of roots.

SOIL.—One part loam, one vegetable soil, one dung, with about one sixth part rough sand.

By following the above directions, fine tall plants covered with blossoms will be obtained, but from the striking of the cuttings to the blooming of the plants, they must be in the flower-house, and when



in bloom remove them to the conservatory until January. Always bear in mind to keep these plants free from the red spider and green fly, otherwise your hopes of a fine display of bloom will be defeated.

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THUNBERGIA ALATA, ALATA ALBA,  
GRANDIFLORA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

ACANTHACEÆ.

Grandiflora, native of the East Indies, 1820 ;  
alata alba, East Indies, 1823.—Propagation, seed,  
cuttings.

The alata and alata albiflora grow well in equal quantities of loam and dung, (well blended together and having laid six months before using,) with a little rough sand. Strike cuttings in July ; keep them in the flower-house ; early in March shift them into the next size pot, repeating this as they fill the pot with roots ; nip off the flower-buds as they appear, until you wish to remove the plants into the conservatory : the pinching off of the bloom greatly strengthens the plants, and consequently causes a much finer succession of blossom during the summer. By continuing the process, a splendid show of fine plants in full flower may be produced this month.

These plants may be grown in the open air during the summer, if fine old plants be turned



into the borders in June, and the season prove very warm.

If they are placed in the most airy part of the flower-house, and regularly syringed, as directed for that department, the additional fine appearance this will give to the plants will amply repay the extra trouble. Observe to keep them trained to the wire trellises or stakes, as they grow very fast, and are apt to run into confusion if neglected in this particular.

East Indies, 1820.—*Thunbergia grandiflora* is a fine variety. It requires to be shifted, as it fills its pot with roots, into the next size pot, until it is in No. 1, in which it is to blossom.

SOIL.—Two parts loam, one part leaf soil, with a little rough sand. This variety is a fast growing plant and requires plenty of room that a free circulation of air may surround it.

It requires the heat of the flower-house.

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## NOVEMBER.

### CONSERVATORY.

HEAT.—A little fire will be necessary this month, but be cautious not to have too much heat. If any severe frost should come, then you must use sufficient to protect the plants from any injury from it, but if the weather be open and fine, a gentle

fire in the morning once or twice a week will be enough.

AIR.—Give as much as you can during the day ; close early in the evening, otherwise the plants introduced from the flower-house will suffer severely ; also, keep shut up close whenever there is any cutting wind and no sun, but should there be sunshine and wind together, then admit air with caution.

WATER.—Attend to this, as the plants in the borders require it ; do not sodden the soil, either in them or the pots, with too much water ; give it only as there appears to be necessity for it. Syringe occasionally on a fine morning, and put on a fire at the same time to carry off the damp.

### GREENHOUSE.

HEAT.—Put on a fire occasionally to carry off the damp when the weather is dull ; if frosty, put it on every night, but do not begin fires until they are actually required. All greenhouse plants look much better in the spring when but little fire is made during the winter.

AIR.—Give as much as you can every day, and close the house the last thing in the evening.

WATER.—As the plants which have been brought into the house will be placed thickly together, it is necessary to be very cautious not to give those plants water which do not require it. Syringe oc-

asionally on very fine mornings: this operation is of much service to the plants, it not only cleans them of damp, but it assists the absorbent vessels in receiving the food requisite for their vigorous growth.

### FLOWER-HOUSE.

HEAT.—This will be required every evening: observe to have as much fire as will keep the thermometer from 60° to 65°.

AIR.—Admit a little every day; on mild days freely. Always close the house early in the afternoon: generally, except in particular cases of fine weather, the house should be shut by three o'clock.

WATER.—Daily attention should be paid to this branch of the business of the flower-house. Give a good supply to all shrubs and bulbs which are brought in to force, as well as to those plants which are placed over the fire flues. Syringe every morning about nine o'clock, and again about three o'clock in the afternoon. Pour water upon the flues every morning and evening.

Introduce shrubs and bulbs for succession as you may require them for the conservatory.

### PLANTS COMING INTO FLOWER THIS MONTH.

Acacia Kermisina.	Rhodochiton volubile.
Crowea Saligna.	Luculia gratissima.
Gesneria oblongata.	Marbelia Baxteri.

*Muraltia mixta.*

*Poinsettia pulcherrima.*

*Passiflora Buonaparteana.*

### LUCULIA GRATISSIMA.

*Class, PENTANDRIA.*

*Order, MONOGYNIA.*

RUBIACEÆ.

Native of Nepaul.—Propagation, cuttings.

This charming plant should not be omitted in any collection: its fine showy leaves are sufficient to recommend it, but its value is greatly enhanced by the agreeable fragranciness of its blossoms when in flower. It succeeds well in a moist heat and partly shaded from the rays of the sun.

The plants should not be allowed to bloom when young; but in October or November the lead should be taken out from each shoot, and if kept growing will make fine specimens by the following autumn, and blossom in great abundance; but if the plant is permitted to flower when young, it often causes it to die.

SOIL.—Sandy turfy peat is the soil in which it succeeds well. The pot should be well drained.

W. MAY,

Leaming Lane.

### MARBELIA BAXTERI.

*Class, DECANDRIA.*

*Order, MONOGYNIA.*

LEGUMINOSÆ.

Native of New Holland.—Propagation, cuttings.

A pretty trailer, and almost a continual bloomer.

It requires to be placed near the glass, but so that the frost may not reach it during winter.

SOIL.—Sandy turfy peat: if the peat be void of sand add a little cally sand to it. Let the drainage be perfect, otherwise the plant will suffer much, and perhaps die for want of this attention.

WATER.—Do not saturate it, but keep the earth in the pot from being dried through in the summer.

W. MAY,  
Leaming Lane.

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#### ACACIA KERMISINA.

*Class*, POLYGAMIA.                      *Order*, MONOECIA.

LEGUMINOSÆ.

Propagation, seeds, cuttings.

This interesting new species cannot fail to please. It is in appearance like julibrisia, but the flowers are produced more profusely, and are of a fine scarlet colour, consequently make a very showy display. The border of a conservatory seems to be the most suitable situation for this noble and graceful plant.

SOIL.—Equal parts of rich light loam and peat.  
GEO. EDWARDS.

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#### CROWEA SALIGNA.

*Class*, DECANDRIA.                      *Order*, MONOGYNIA.

RUTACEÆ.

Native of New South Wales, 1790.—Propagation, cuttings.

A fine plant, deserving a place in every collection on account of its beautiful flowers. It requires the greenhouse, and to be kept in all the year and placed near the glass. Be cautious of too much water, but always allow it sufficient to prevent it from flagging, and give the pot a good drainage.

SOIL.—Peat and loam, with a little cally sand.

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GESNERIA OBLONGATA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

GESNERIEÆ.

Native of West Indies, 1840.—Propagation, cuttings of young shoots or leaves.

This handsome species is an almost perpetual bloomer, but its prime season is in October, November, and December. This is one of the best of the genus, differing in its appearance from the other species in its robust growth; it attains to the height of six feet, having the appearance of a shrub. When covered with its fine scarlet flowers, which are oblong with an extended corolla, it presents a grand appearance. It requires a stove to grow it to perfection, but it may be blossomed in a greenhouse during the summer months.

SOIL.—Rich light loam and peat.

G. EDWARDS.

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## RHODOCHITON VOLUBILE, ETC.

## SCROPHULARINÆ.

A beautiful climber: it succeeds well in pots, trained on fancy wire or wicker work. In March, I strike cuttings, pot them in No. 60 pots, and place them in a gentle heat for a short time: as soon as they are rooted afresh, I remove them into the greenhouse. Early in June, I move them to the pot ground: at this time I shift them into No. 16 pots, and commence training them. These plants bloom during the autumn and winter months. In June following, I shift them into No. 8, and stand them in the pot-ground until I introduce them into the conservatory. I continue training them as they advance in growth, and cutting off the flowers until I wish them to bloom. The following spring, I plant them out in the flower-garden, keeping up a supply of young plants as before.

SOIL.—Loam and dung, equal parts, with a little rough sand.

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## MURALTIA MIXTA.

*Class*, DIADELPHIA.

*Order*, OCTANDRIA.

## POLYGALEÆ.

Native of Cape of Good Hope, 1791.—Propagation, cuttings.

A pretty plant, which commences flowering this

month and continues through the winter. It deserves a place in every collection.

SOIL.—Peat with a little cally sand: it should be repotted in March, and treated as a common greenhouse plant, with the exception that in very wet weather in summer it should be laid on its side, to prevent the ball from becoming soddened with too much moisture.

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PASSIFLORA BUONAPARTEA, ALATA.

*Class*, MONADELPHIA.      *Order*, PENTANDRIA.

PASSIFLOREÆ.

Native of West Indies.—Propagation, cuttings.

These fine varieties, with their allies, will bloom in pots if they have plenty of pot and trellis room. Cuttings require to have one year's growth before they bloom freely. In May, the plant must be cut down to about six eyes, and repotted: in performing this, the greater part of the old ball must be shaken from the roots, and the plant repotted in a No. 8 size pot, and placed in the flower-house: it will require but little water for some time. As soon as the pot is full of roots, water with dung-water once a week.

SOIL.—Two parts strong loam, and one part dung, with a little rough sand. These varieties will bloom this month and the next, but if desired to flower earlier, the repotting must take place

earlier in the spring. When done flowering, place the plants under the greenhouse stage: they will require no farther care until you wish them to commence growing; the water they will receive when the plants on the stage are watered, will be sufficient for them while they remain in the greenhouse.

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### POINSETTIA PULCHERRIMA.

#### EUPHORBIACEÆ.

Native of Mexico.—Propagation, cuttings and eyes.

A fine showy plant, having its brilliant scarlet bracts as its chief characteristic. It requires to be cut down in March to two or more eyes, according to the strength of the stock. Shake off all the soil from the roots, and repot in pots proportionate to the size of the plant; shift as it fills its pot with roots until it is in No. 16, if it is of vigorous growth. When potted, place it in the bark bed of the flower-house, or in a cucumber frame, until June, when it may be removed into the greenhouse. Having a number of plants, some of them may be taken into the flower-house in September, others in October and November; those in the flower-house will blossom in August, and the others in succession until January.

SOIL.—Three parts good yellow loam, one part dung, and one rough sand.

As soon as the bracts are fully developed, remove the plants to the warmest part of the conservatory, where let them remain until the beauty is over, when place them on the back shelves of the flower-house, giving but little water.

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## DECEMBER.

### CONSERVATORY.

As this is one of the most gloomy months of the year, it is necessary to keep the house free from damp, by giving fire-heat occasionally during the day; but at the same time give an abundance of air. On the appearance of frost, keep sufficient heat to have the thermometer from  $45^{\circ}$  to  $50^{\circ}$ . A little fire will be requisite every night to preserve the plants from the flower-house from any injurious effects of change of atmosphere. Keep the plants free from insects by using every means for their destruction.

**WATER.** — This element will be occasionally wanted. Look to the borders near the pipes or flues, and give them gentle waterings when dry. Give water in small quantities, also, to the plants in pots, but as much as will go quite through the balls.

**AIR.** — Admit a little every day, unless the weather is very dull and cold, when it should be

excluded by keeping the house closed. Occasionally syringe the plants.

### GREENHOUSE.

HEAT.—Keep this house as cool as possible; but when the weather is damp for several days together, then put on a fire in the morning occasionally, nor will it be necessary to have fire in the evening, except there is a likelihood of frost, and then put on only sufficient to prevent the plants from receiving injury, for, when plants are drawn up, by too much heat at this season, they present a sickly appearance in the spring, which above all things is to be avoided.

AIR.—Give as much as possible every day, only excluding cold cutting winds.

WATER.—Use this element with caution, for if it be given too freely it excites the plants in too great a degree, which is detrimental to their growing and flowering in strength at the spring season. Occasionally syringe them on very fine mornings; it is of benefit to the plants, by keeping them free from dust, and it greatly refreshes them.

### FLOWER-HOUSE.

Keep the bark beds in a lively heat by forking them up once a month. Introduce plants for successional bloom. See the respective kinds noticed for this purpose.



HEAT.—This must be from 60° to 65°, being guided by the state of the external air.

AIR.—Admit all you can with safety, as the roses, if drawn up, will flower weakly: a little may be given every day if the weather be not dull, and there is no cold cutting wind direct upon the glass. On fine days admit air early, but close early in the afternoon.

WATER.—Much attention is necessary in this respect. Pour a good supply upon the flues soon in the morning, and when the fire is made up for the night, give a good watering to all the plants introduced for flowering early. Syringe twice a day, about nine in the morning and three in the afternoon.

PLANTS COMING INTO FLOWER.

Billbergia pyramidalis.	Justicia speciosa.
Calceolaria bicolor.	Phylica spicata.
Citrus.—Orange.	Reseda odorata.
Epiphyllum truncatum.	Ruellia formosa.
Eranthemum pulchellum.	Salvia polystachya.
	Struthiola erecta.
Erythrina Crista Galli.	Viola.
Euphorbia fulgens.	

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BILLBERGIA PYRAMIDALIS.

Class, HEXANDRIA.      Order, MONOGYNIA.

BROMELIACEÆ.

Native of Rio Janerio, 1817.—Propagation, suckers.



A noble plant, it flowers freely when treated as under : suckers are removed from the parent plant in December, at which time it flowers, when it is placed in the conservatory. The suckers are to be planted in No. 48 pots, and plunged in the bark-bed ; as they fill their pots with roots, they are to be shifted into the next size pots, until they are in large No. 24, in which pots they flower : the last shifting ought to be in June.

SOIL.—Two parts light turfy loam or decomposed dung, with a portion of rough sand ; the pot to be well drained.

WATER.—Give freely from April to August ; then withhold it altogether for two months, and afterwards let it have a good supply. The flower stems soon appear, and when in flower, it should occupy the warmest part of the conservatory.

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#### CALCEOLARIA BICOLOR.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

#### SCROPHULARINÆ.

Native of Peru, 1829.—Propagation, cuttings, seeds.

It is a pity this plant should be so much neglected : its fine foliage contrasted with its flowers render it a pleasing ornament to the conservatory during the months of November and December. Strike cuttings in May ; pot them in No. 48, and continue to shift and tie them to stakes as they ad-

vance in growth. Let them receive their last shifting in August, either in No. 12 or 8 pots; keep them tied up as they increase in growth, and cut off the flowers as they appear, until September, at which time allow them to commence blooming, and in November they will present a fine show. Keep them as near the glass as possible, as the time they continue in blossom will greatly depend upon that.

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### CITRUS.—THE ORANGE.

*Class*, POLYADELPHIA.      *Order*, POLYANDRIA.

#### AURANTIACEÆ.

Propagation, seeds, cuttings, inarching, grafting.

This is a genus of great importance, inasmuch as it is one of the many imported fruits which are now attainable by every class of persons. Its peculiar attraction as an exotic arises from the pleasure it affords the grower in witnessing the different stages of the fruit growing at the same time on the tree, part of it being green and part in a state of maturity; added to which is the singular circumstance of its bearing its blossoms for a succession of fruit while the fruit is growing and ripening. By commencing a regular heat from 55° to 60°, oranges have been procured for the table superior to those which are imported. But as it is not every mansion that has the accommodation of

a house for an orangery, I shall not give any directions for the growth of the orange as a fruit for the table, but confine myself to the treatment of the cultivation of them in pots or tubs.

The usual mode of raising young plants from seed, and inarching upon them any kind you may wish, is the best one I can recommend; but if it is not practicable, you may engraft them, placing them, when the operation is performed, in a heat of  $60^{\circ}$  or upwards. The safest method of engrafting is the whip or tongue grafting, which is performed by first cutting off the head at the height desired, then cutting the stock in a slanting direction, commencing about an inch below the top of the stock; draw the knife upwards, so that the crown of the stock is cut in two; cut a tongue in the stock downwards, and make the tongue in the scion; after it is cut in like manner to correspond with the tongue in the stock, then insert the scion, and tie them together tight with bass, and cover it round with damp moss, or any thing that will exclude the air from the engrafted parts. Grow them quickly for two or three years by placing them in a vinery, or any house of equal heat most convenient.

Treatment when established in pots or tubs.—They require a south aspect, with abundance of air at all times. When grown for ornament alone, they should have plenty of pot or tub room with

good drainage. At Longleat, the seat of the Marquis of Bath, they flourish amazingly under the following treatment, communicated by Mr. March.

SIR,

According to your request, I forward to you the treatment of the Citron tribe as practised at this place.

Time of potting, March or April, as circumstances admit; at which time we remove a portion of the old soil and set the matted roots at liberty. Give such plants as are in a good healthy condition a shift into a larger pot or tub. When any assume a sickly appearance, we pot in a smaller pot, and they soon recover.

WATER.—This is given with a sparing hand until they have filled the new soil pretty well with roots, at which time it is given more liberally. Syringe twice a day when the weather is fine; this gives them a fine green foliage.

We expose them to the open air in a sheltered situation for about six weeks in the most settled part of summer.

A top dressing of sheep's dung, when taken in, is of much benefit to this genus.

Observe to keep the trees free from insects; it will demand constant attention to effect this. A mixture of the alkaline extract is a good preventive.

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## EPIPHYLLUM TRUNCATUM.

*Class*, ICOSANDRIA.*Order*, MONOGYNIA.

OPUNTIACEÆ.

Native of Brazil, 1818.—Propagation, cuttings and grafting.

A charming plant: it requires a stove to flower it during the winter months; it will live in a warm greenhouse, if kept moderately dry during the winter. We generally see this plant upon its own bottom, but, to have it in its greatest perfection, it should be grafted upon the pereskia aculeata, or upon the strong growing kinds of cactus; I prefer the pereskia. The spring is the most proper time for the operation, and any one accustomed to engrafting will be able to succeed. First, the pereskias must be strong plants of two years' growth from cuttings. Cut the stem off the stock in a sloping direction, and make a slit downwards with a sharp knife; select a narrow part of the scion, and pare the sides to correspond with the thickness of the stock, then cut the stock in a slanting direction, and make the tongue to correspond with the down cut in the scion, insert the scion, and tie them tight together with bass, and cover all over with moss, binding it firmly to the grafted part. Remove the moss in about six weeks, but leave the bass a short time longer.

The soil in which the plant delights is good yellow loam, the turfy part, one year old; add to



this a portion of old decomposed dung with a little rough sand. I give the plants a shifting every year, and always remove two-thirds of the old soil as soon as the pots are filled with roots. It requires a good supply of water until it flowers, at which time it is removed into the conservatory, when it only receives a moderate supply. This gives the plant a season of rest from December to March, at which time it is removed from the conservatory, reshifted, and placed in the flower-house, as near the glass as possible.

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#### ERANTHEMUM PULCHELLUM.

*Class, DIANDRIA.*

*Order, MONOGYNIA.*

#### ACANTHACEÆ.

Native of East Indies.—Propagation, cuttings.

This fine blue flowering species is particularly deserving of a place in every collection, for its durability in blooming. For its propagation it is only requisite to strike cuttings early in the spring, and they will attain sufficient growth to blossom freely in the autumn months, at which time remove them to the conservatory. Cut down the old plant at three different times during the year, shake them out and repot at the same time; a succession of bloom will be the result.

SOIL.—Peat, loam, and leaf soil, equal quantities. Let the pot have a good drainage. A good supply



of water, with a stove heat when growing, is requisite for its successful cultivation.

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ERYTHRINA, CRISTA GALLI.

*Class*, DIADELPHIA.

*Order*, DECANDRIA.

LEGUMINOSÆ.

Native of Brazil.—Propagation, cuttings.

This is a very showy species, and is so hardy as to live in the open air against a south wall, providing the wet is not allowed to enter the ground in which it is planted during the winter. But it is a noble object in a conservatory, particularly when it commences flowering in the dull month of December, which it will do, and continue in bloom until February, if treated as follows:—When the roots are removed out of their winter quarters, for which a cellar, loft, or shed is appropriated, place them on the north side of a wall, laying the pots on their sides; let them remain in that situation until August, at which time turn them out of their pots, shake part of the soil from their roots, and repot them; place them in a heat of about 55°, if a dung heat the better; give air during the day, attend to watering and sprinkling them, and they will produce a fine display of blossom in this month.

For a succession, take a number of pots, introduce them into the flower-house or an early forcing vinery in January, they will commence blooming in March, and continue until June. Those in-

tended for blossom in the following months will require only the greenhouse. It is advisable to have not less than six plants at the respective seasons of growth, to keep up a succession of plants in flower.

SOIL.—It succeeds well in turfy loam two parts, decomposed dung one part, and a portion of rough sand. The drainage must be complete.

SEASON OF REPOTTING. — This must be in the months of August, January, and May, at which time you introduce them into their respective situations as directed above. Full sized plants will require No. 8 pots, others in proportion to their growth.

WATER.—From the time of their commencing growth give a good supply, increasing it as they fill their pots with roots, and gradually diminishing it as the flowers decay; and when the leaves begin to turn yellow and fall off, give no more, but remove the plants into a cool dry situation protected from the frost.

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EUPHORBIA FULGENS.—JAQUINSIÆFLORA.

*Class*, DODECANDRIA.

*Order*, TRIGYNIA.

EUPHORBIACEÆ.

Native of France, 1826.—Propagation, cuttings.

Plants of great beauty, their small scarlet flowers being produced in great abundance; they are of easy culture, grow freely in rich light soil,

and require the stove. I place them in the conservatory for about one month when in flower, and then remove them into the flower-house, keeping them dry from January to March, at which time I shake all the soil from the roots, repot them in pots proportionate to the size of the plants, and give a good watering. I previously cut down the plant, leaving about half an inch of young wood. They strike freely from cuttings placed in the stove.

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JUSTICIA SPECIOSA.

*Class*, DIANDRIA.

*Order*, MONOGYNIA.

ACANTHACEÆ.

Native of the East Indies, 1826.—Propagation, cuttings.

A fine showy stove plant, increased by cuttings, which must be struck early in spring, and kept in the flower-house all the summer; they will flower in great perfection in November and December the same year. The old plant, cut down in the spring, shaken partly out of the soil, and repotted, will also blossom remarkably well. Observe to pot the cuttings and keep them shifted into large pots as they fill their pots with roots: the same rule applies to the old plants.

**SOIL.**—Good strong turfy loam and vegetable soil, equal quantities.

**WATER.**—Give a good supply of water when the

plants are growing vigorously, but allow them a season of rest after flowering.

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### PHYLICA SPICATA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

#### RHAMNEÆ.

Native of the Cape of Good Hope, 1774.—Propagation, cuttings.

This plant, like its allies, flourishes the most when exposed to the light and air. A free circulation round the plant is of benefit to it; this is an advantage which all the heath-like plants should have, as they in their natural state grow in open situations, and not as here where there is more shade than light and air. These families have, in some measure, sunk into disrepute; but give them the benefits above, with perfect drainage to carry off the superfluous moisture, and a moderate supply of water, with as cool a house as you can with safety during winter, and they will amply repay you for the care bestowed on them.

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### RESEDA ODORATA.—MIGNIONETTE.

*Class*, DODECANDRIA.      *Order*, TRIGYNIA.

#### RESEDACEÆ.

Native of Egypt, 1752.—Propagation, seeds.

Two sowings of this fragrant plant are requisite for a supply for the several months of the year. I am aware that plants raised in May will continue

to flower for eighteen months ; but it is not every one that has a situation so near the glass as to do this, therefore I shall confine myself to two sowings for the year : the first to be in June for a supply from August to January, and the second on the first of August for the supply for the remaining months. The soil should be light and rich, with a portion of rough sand, and some decomposed horse dung at the bottom of the pot. Protect the young plants from heavy rain, as that is injurious to them. In October place the pots on shelves near to the glass, and remove them to the conservatory, one or two at a time, as requisite ; give a moderate supply of water. If the above treatment be pursued, bearing in mind that a circulation of air, and as much light as possible, are necessary for its success, you will have plenty of fine plants.

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### RUELLIA FORMOSA.

*Class*, DIDYNAMIA.      *Order*, ANGIOSPERMIA.

#### ACANTHACEÆ.

Native of Brazil, 1808.—Propagation, cuttings, seed.

A handsome scarlet stove plant, but may yet be occasionally removed into the conservatory when in bloom ; it is but of short duration, but the blossoms are produced in succession in abundance. It is requisite, to flower this plant in December, to have strong grown plants which were cuttings in the

spring, place them in the warmest part of the stove, near the glass. For flowering during the summer, cuttings must be struck in the autumn; by this means successional bloom is obtained.

SOIL.—Leaf-mould, loam, and peat, with a portion of rough sand.

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### SALVIA POLYSTACHYA.

*Class*, DIANDRIA.      *Order*, MONOGYNIA.

#### LABIATÆ.

Native of Mexico, 1822.—Propagation, cuttings.

This is a much neglected species. Its fine blue spikes, which are produced in abundance, form a pleasing contrast at this season of the year, and the little care required to keep it in a flowering state may probably be a cause of its neglect. Nothing more is necessary for its preservation than to protect it from the frost. Strike cuttings and pot them in strong loam. Grow them in this and they will bloom for several successive years without repotting. Give a watering of manure water about twice during the summer months, to enrich the soil in the pot. Cut the plants down when they are placed out of the greenhouse in May.

WATER.—A moderate supply all the year.

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## STRUTHIOLA ERECTA.

*Class*, TETRANDRIA.      *Order*, MONOGYNIA.

## THYMALACÆ.

Native of the Cape of Good Hope, 1798.—Propagation, cuttings.

A pretty plant, like most of those from this part of the globe ; it requires as much light and air as possible, and when a fine bushy plant is the object, pinch out the leads of the shoots as they attain a proper length.

SOIL.—Peat, which is of a turfy nature and containing a portion of caly sand. Give a good drainage.

WATER.—A moderate supply, but always keep the ball from being dried through.

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VIOLA.

*Class*, PENTANDRIA.      *Order*, MONOGYNIA.

## VIOLANÆÆ.

Propagation, seeds, division, and cuttings.

The Neapolitan and Russian violet raised from cuttings in March, pot off into No. 60 sized pots as soon as struck root, and place them in a gentle dung heat ; gradually inure them to the open air. Plant them out in June into a bed of rich soil, and give them a liberal supply of water when the weather is dry. Early in August, lift and pot them into No. 32 size ; give them a liberal watering and

place them in the shade. When recovered from the effects of potting, expose them, by degrees, to the sun's rays. In October, plunge the pots up to their rims in ashes in a cold frame, as near the glass as possible, and put on the lights so as to protect them from heavy rains and severe frosts. At other times draw off the lights or give air, being guided by the weather. In severe frosty weather cover up with mats.

SOIL.—Two parts of good turfy loam, one of fine bone-dust. Use this compost at every potting.

These will produce flowers at Christmas.

## ORCHIDACEÆ.

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THIS is a most elegant and engaging class of plants, possessing every attraction to occupy the attention of the botanist, and to excite the admiration of every one having the least taste for the pursuits of Flora; affording also abundance of matter to the contemplative mind for expatiating on the beauties and endless varieties of nature presented to us in each department of her wonderful works, tending to show that

“ All nature is a glass reflecting God,  
As, by the sea, reflected is the sun,  
Too glorious to be gazed on in his sphere.”

Here we find vegetation producing an offspring bearing a striking resemblance to quadrupeds, birds, and insects. Well might the inspired Psalmist cry out, “ O Lord, how manifold are thy works; in wisdom hast thou made them all. The earth is full of thy riches.”

The orchidaceæ are natives of the tropical regions, with the exception of a few which are found in more temperate climes. But those noticed in this work being chiefly from the warmer parts of

the globe, a few observations on their climate and situation cannot be unacceptable to the cultivator.

They are natives of those regions where vegetation is subject to the same changes as our own island, but produced by quite different principles, those of drought and excessive heat. They are visited by hot winds, which are known by the appellation of dry monsoons; these penetrate through the thickest forests, dealing devastation and drought to every thing around. At their commencement vegetation gradually diminishes; the trees lose their leaves, herbage lies dormant in the earth. Orchidaceæ hang their drooping heads, and all appears desolate and bare. Many of the birds migrate to other climes to find shelter from these scorching winds. When all vegetation thus seems completely dried up, and the country presents nothing but a dreary prospect, similar to that caused by the ravages of our severe frosts, suddenly the wet monsoons commence and usher in the lovely spring. Vegetation lies no longer dormant, but bursts into action, and in a few days every tree puts on its hue of lively green, and the renovated herbage sends forth its rich perfume. Orchidea puts forth, and is clad in all its charms, producing its flowers in great abundance; and now the birds return to welcome this enchanting change, and spring again resumes her reign, where all so late was desolation. Our readers need not be told that the

description of plants we are now treating of require a season of rest : the nearer, therefore, with respect to this particular and their reaction, we can approach nature, the greater will be our success in the cultivation of the plant.

Let it be remembered that the orchideæ are found in the thickest woods, as well as upon solitary trees, where the direct rays of the sun never shine ; it will therefore be useless to add that a moderate degree of shade will be indispensably necessary for their arriving at perfection, even in this more northerly clime. In many parts, the night dews fall very heavily, which, in some measure, accounts for the existence of numerous plants attached to trees, and deriving little or no support from them, they being supported and fed by their absorbent powers attracting moisture or succour from the surrounding atmosphere. Hence the necessity of moist air being kept up, when they are in a vigorous growing state ; and more particularly so when suspended from the roof of the house. Owing to the too generally received opinion, that this beautiful family of plants are difficult of cultivation, they are as yet confined to a few collections ; but it is to be hoped that before long they will grace our common hothouses, as the gesnerias now do. Having this view, I have obtained the assistance of several friends, eminent for their cultivation of orchideous plants, and whose practical

observations I feel proud in laying before my readers, commencing with that of Mr. T. Edgerley.

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SIR,

In compliance with your request, I have commenced a selection of the best varieties in cultivation. We have 700 varieties in this place. It is generally believed that this noble family is difficult to cultivate in our common plant stoves; but in this respect I beg leave to state that I have seen these plants cultivated in a pine stove, in a manner far superior to that in which they are cultivated by many persons who have a house appropriated solely for them. It is commonly supposed that they require a very great degree of heat; most cultivators give much more than I do; I rarely keep above 65° fire heat, considering a higher temperature unnecessary, and I can affirm that the plants are in vigorous health, and looking much better than many which I am accustomed to see, growing in that degree of heat which most cultivators deem necessary for them. Having this in view, I shall draw up whatever I send for insertion in your work, in a way best adapted to each genus. I wish to observe that the same treatment, in most instances, will be found adapted to the whole genus: when, however, any species requires a different treatment I will point that out.

MOISTURE.—Orchideous plants delight in a hu-



mid atmosphere, particularly during the hot summer months: this is easily managed by pouring water on the paths and flues several times in the day, and by placing pans containing water upon the flues or the stage during the time the plants are in their most vigorous growth.

**SHADE.**—It will be necessary to shade for a few hours during the hottest days of summer. This may be effected by means of a thin net similar to that used to protect peach trees in the spring. It would be the readiest and most convenient way to accomplish the purpose in view, if the net were secured in a case on a roller at the top of the roof, and so fitted as to be drawn up and down by ropes and pulleys; by this means protection could be afforded from wet, and the whole could be removed during the winter months.

**POTTING.**—For potting I use shallow pots similar to the figure here described:



so that I can either suspend them, or have them on the stage at pleasure. They are perforated, as represented by the dots and by stripes cut out in the manner shewn in the above patterns. All of the orchidean family are much benefited with a free drainage; in most cases it is advisable to invert a small pot over the hole of the large one, and to fill

at least to the inverted pot with potsherds, putting the larger ones at the bottom and the smaller ones at the top: this allows the warm moist vapours to ascend amongst the roots, which are very beneficial to the plants. Pot the plant above the rim of the pot; the larger the plant the greater elevation it will require. The same treatment applies to plants grown in baskets; and it would be an advantage in the appearance, if the baskets were made of different ornamental figures, as they are suspended from the roof of the house.

When grown upon wood, select logs which are soft wooded or half decayed, or of very rough cracked bark; the more excrescence the better. Place the plants firmly in the wood by lashing it to it with thin metallic wire, fastening it with a few tin tacks. If the plant be large, put a little turfy peat among the roots, and cover them with hypnum moss, gathered from the trunks of trees in moist thick woods. Examine it minutely, and remove all small snails from it, as they are very destructive to the roots of these plants. In order to cause the moss to adhere to the roots of the plants, take a little strong loam or clay, mix it with water to the consistency of paint; dip the rooty part of the moss slightly in this, lay it on the roots of the plant, and you will find it will adhere sufficiently both to them and the wood without tying, and if neatly done, the moss will appear as if it had grown there

for years. Keep the moss moist, and the roots will run freely amongst it.

T. EDGERLEY.

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### ORCHIDEÆ.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Brassia candata*—Jamaica—1823—Division.

A most curious species, with large bright green flowers spotted with deep purple; its long sepals give it a very curious appearance.

— *lanceana*—Surinam—1833—Feb.—Division.

Yellow flowers, spotted with red; fragrance resembling cowslips; a beautiful species.

— *maculata*—Jamaica—1806—June and July—Division.

Pale green flowers, much spotted with purplish red.

— *macrostachya*—Surinam—1838—Division.

This species resembles *Brassia candata*, but the flowers are smaller, greener, and much more spotted.

— *verrucosa*—Mexico—1839—April—Divis.

Clear greenish yellow flowers, with lip curiously covered over the lower petals, with warts of a green colour.

— *Henchmannii*—Demerara—1836.

The above genus are all well worth growing, they being a good select collection. They delight mostly in pot culture, and grow freely in

fibry peat, intermixed with a large portion of sand and potsherds ; should the peat have much sphagnum mixed with it, so much the better : they like a moist house, where there is not too excessive heat. Give water plentifully, and keep them shaded from the heat of the sun, otherwise they will change to a yellow sickly hue. When they have perfected their growth, diminish both moisture and heat. Give them a season of rest ; but withhold not water from them altogether, as is recommended for some of the wonderful Orchideæ tribe.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Broughtonia sanguinea*—Jamaica—1793—All summer—Division.

Its flowers are a beautiful carmine, and it is worthy a place with the best collections.

—— *nitida*—Division.

—— *aurea*—Mexico—1838—Division.

Its flowers are yellow, and larger than those of *sanguinea*.

This genus succeeds best on logs of wood, strewing about their roots some light peat, and taking care to have them well covered with green moss collected from the trees in thick woods. When growing, give them plenty of water, and but little when they are at rest. They delight to grow in a moist but not in too excessive heat. When sus-

pended from the roof of the house, they flower very freely.

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*Class, GYNANDRIA.*

*Order, MONANDRIA.*

*Burlingtonia candida*—Demerara—1834—April.

Its flower is a delicate white; a beautiful species.

—— *rigida*—Brazil—1840.

Large white flowers, drooping, and delicately tinged with pink.

—— *maculata*—Brazil—1837—May.

Its flowers are yellow, shaded with orange and spotted with red.

To cultivate this tribe, it is advisable to tie them to a block of wood, and to suspend them from the roof of the house, as is recommended for the last mentioned genus, giving water plentifully when in a growing state, but very little when at rest. Take care to shade them from the powerful rays of the sun, or they will assume a sickly appearance.

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*Class, GYNANDRIA.*

*Order, MONANDRIA.*

*Bletia Shepperdii*—Jamaica—1833—Jan.—Divis.

—— *Verecunda*—Jamaica—1832—Jan.—Divis.

—— *Hyacinthiana*—China—1839—March to July—Division.

—— *pallida*—West Indies—1820—Feb.—Divis.

The above genus, with many others, flourish in tufty sandy peat, with a portion of potsherds and



sandy loam. The pots must be well drained. They require a large supply of water when growing, which must be gradually diminished when they have perfected their growth. When dormant they need but very little water, and are benefited if placed upon a dry shelf.

Tankwillia—China—1778—March to April—Divis.

The Tankwillia although a species of the Bletia tribe, requires a quite different soil. It flourishes well in one part of decomposed horse droppings, one part of good yellow loam, and one part peat, with a little rough sand.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

Brasavola cordata—Rio Janeiro—1831—January  
—Division.

———— glauca—Mexico—1837—January—Di-  
vision.

———— grandiflora—Division.

Glaucæ and grandiflora are decidedly the two best species of this genus; these thrive best in baskets, or upon blocks of wood. When grown in baskets plant them in open light peat and potsherds; when peat cannot be procured, use chopped sphagnum, mixed with a little white sand. If grown upon blocks of wood, secure a portion of moss to their roots, and fasten the plants with copper wire; they should have an abundant supply of water when in a



growing state, which must be gradually diminished when the plants have attained their perfect growth. Allow them a season of rest, and during that time a little water only should be given.

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*Class*, GYNANDRIA.      *Order*, MONANDRIA.

*Calanthe Veratrifolia*—West Indies—1819—Divis.

White flowers upon an erect stem, three feet high ; very fine.

— *demiflora*—Sylhet Mountains—1834—Oct.  
—Division.

Flowers a deep yellow, upon a short erect stem.

These plants grow best in equal parts of sandy loam, leaf earth, and sandy peat, with a slight portion of sand not too fine, but left in pieces near an inch square, give plenty of drainage. They grow well in any common stove. Give plenty of water whilst growing.

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*Class*, GYNANDRIA.      *Order*, MONANDRIA.

*Catasetum cristatum*—Brazil—1823—Division.

Greenish flowers slightly spotted, lip white and singularly erected.

— *Claveringii*—Brazil—1822—Division.

Large green sepals, petals yellow, lip purple and mottled with dark red.

— *rosea* *Alba* or *monocanthus*—Para—Aug.  
—Division.

Flowers white, lip tipped and streaked with red.

*Catasetum floribundum*—Trinidad—1824—Nov.

—Division.

Flowers yellow and brown.

— *spinosum* or *myanthus*—Brazil—1838—Aug.

—Division.

Much like *myanthus barbatus*, but brighter.

— *simiapertum*—Brazil—1834—Feb.—Divis.

Flowers greenish yellow; a fine species, very fragrant.

— *tridentatum*—Brazil—1830—Sept.—Divis.

Flowers yellow and brown; a variable species in size, and marks on the flowers.

— *luridum*—Rio Janeiro—1832—Sept.—Divis.

Green and yellow flowers, spotted inside with deep purple.

— *trifidum*—Trinidad—1832—May—Division.

Flowers a lurid green, spotted with purple, and a loose drooping spike.

— *maculatum*—New Grenada—1836—July—Division.

Sepals and petals green, spotted with purple; lip similar.

— *striatum*—Brazil—1837—Division.

Sepals spotted with green and tinged with red inside, petals a pale green spotted with red, lip white and slightly spotted: a beautiful species.

— *poriferum*—Demerara—1838—Division.

Flowers green, spotted with rich purple; lip dull green.

Catasetums grow well in a warm moist stove, potted in peat earth having plenty of fibres in it, and mixed with sphagnum chopped fine. Fine light brown peat is far the best, providing it has plenty of sphagnum in it, and fibry roots of heath intermixed with a portion of white sand. Give an abundance of water when growing, gradually diminishing it: when they have perfected their growth, keep them quite dry during their season of rest.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Cattleya guttata*—Brazil—1830—Division.

Sepals green, spotted with red; petals white; lip a beautiful purplish red.

— *crispa*—Rio Janeiro—1826—Division.

A splendid species, with large flowers; sepals and petals white, beautifully crisped round the edges; lip white, and handsomely marked in the centre with a beautiful crimson purple.

— *Forbesii*—Rio Janeiro—1823—Division.

Sepals and petals yellow; lip pale yellow, faintly spotted with red.

— *labiata*—Brazil—1818—October—Division.

A most splendid species: flowers large; sepals and petals of the most delicate lilac; lip beautifully shaded, and veined with the most elegant crimson, impossible to describe.

*Cattleya Loddigesii*—S. America—1815—July and August—Division.

A beautiful species, of an inimitable purple rose colour.

— *elator*—Brazil—1827—Division.

— *Skinneri*—Guatemala—1840—A new species—Division.

A splendid species, with crimson flowers.

— *intermedia*—Rio Janeiro—1824—June—Division.

Delicate white flowers, resembling *Forbesii* in habit, &c.

— *Perinii*—Brazil—Division.

A beautiful species, not unlike *labiata* in growth. Sepals and petals a pretty lilac; lip white, handsomely margined; fine large crimson flowers.

— *pumilla*—Essequibo—1837—Division.

Rich rose purple flowers; lip large, and of a deep purple.

— *bicolor*—Brazil—1837—August—Division.

Sepals and petals a dull olive green spotted with brown; lip a deep violet crimson.

— *Mossiiæ*—La Guayra—1836—April—Division.

Sepals and petals a beautiful delicate lilac; lip rather paler, spotted and elegantly veined with brilliant crimson.

*Cattleya superba*—Guiana—1836—Division.

From the richness of its flowers, it is in point of beauty inferior to none.

—— *Aclandii*—Brazil—1839—July—Division.

Sepals and petals green, spotted with dark purplish red; lip a fine purple; a new species.

The *Cattleya* is undoubtedly the finest genus of Orchideæ. They require a warm moist stove, and may be placed in the most sunny part of the house, taking care to shade them from the sun's most scorching rays during the summer months. They grow freely in fibry peat, with plenty of sphagnum mixed with it; if sphagnum should not be found naturally mixed with the peat, (which is preferable,) it must be added. Break the peat into pieces about an inch square; mix a great portion of potsherds amongst the composition; elevate the plant above the rim of the pot, and give water plentifully while growing, gradually diminishing it previous to the season of rest. It is not advisable to withhold water from this class altogether, as some cultivators do, to the great injury of the plant, when dormant.

In potting, give plenty of drainage; should the pots be large, invert a smaller one inside the larger one, and fill up level with small potsherds. If good drainage should not be given, the plants will soon

become sickly, from which state they very rarely recover.

All of this genus thrive best when risen high above the rim of the pot. Fill the pot at least three inches above the rim, so as to admit the roots free liberty to twine round the pots, in which they delight.

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*Class*, GYNANDRIA.                      *Order*, MONANDRIA.

*Chysis aurea*—Venezuela—1834—Sept.—Divis.

Racemes upright; flowers yellow, with crimson veins.

—— *Laeves*—1839—August—Division.

Large yellow flowers; labellum spotted with dull brown.

—— *Bractesrens*—1839—Aug.—Division.

Flowers white, with deep yellow.

This genus grows best suspended in pots.

SOIL.—Rough peat and large potsherds.

All these are worthy of a place with the best and choicest Orchideæ.

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*Class*, GYNANDRIA.                      *Order*, MONANDRIA.

*Cirrheæ Loddigesii*—Brazil—1822—Aug.—Divis.

Pale yellow flowers, slightly spotted with red, on a long pendent stem of many flowers.

—— *viridi purpurea*—Brazil—1827—June to Aug.—Division.

Sepals and petals green, beautifully bearded,



and spotted with purple ; petals yellow, spotted with red. A splendid species.

*Cyrrhoea Warreana*—Brazil—1831—Division.

Sepals and petals yellow, spotted with red ; a beautiful species, growing freely in moist peat and potsherds.

—— *tristis*—Mexico—1828—June—Division.

Green, red, and purple flowers beautifully spotted, growing freely in fibry peat and potsherds.

—— *obtusa*—Rio Janeiro—1836—Sept.—Divis.

Sepals and petals yellow, spotted with red ; the other parts of the flower are a dirty white, spotted with red.

This tribe thrives and looks best grown on wood or wooden basket suspended from the roof of the house. Most of the *cirrhoea* have long pendent racemes hanging gracefully from the base of the pseudo-bulbs. They grow freely in fibry peat, sphagnum, and potsherds.

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*Cirrhopetalum Thouarsii*—Manilla—1836—July.

Flowers yellow, dotted with red.

Of this genus there are six or eight species : they require a moist stove. When perfecting their growth withhold water gradually, and give but little when at rest. Give good drainage, by nearly filling the pots with brickbats and broken pots, placed

in a conical manner ; let the smallest pieces project nearly through the surface of the soil. Use compost composed of fibry peat, chopped sphagnum and potsherds. Elevate the plants above the rim of the pot : with such treatment they will grow freely.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Cœlogyne fimbriata*—China—1824—Division.

Sepals and petals yellowish green ; lip white, marked with red.

—— *punctata*—East Indies—1822—Division.

Flowers yellow : an elegant species.

—— *flaccida*—Nepaul—1829—February—Divis.

Lip white, blotched with yellow ; a moderately large flower : an interesting species.

—— *Wallichiana*—India—1837—October—Divis.

Large flowers of a deep rose colour ; one of the handsomest of this genus.

—— *ovalis*—India—1837—Division.

Yellowish green flowers, twice the size of *Cœlogyne fimbriata*.

—— *ocellata*—India—1837—Division.

Sepals and petals white ; lip white, with two beautiful yellow spots on the lateral lobes.

The same treatment as is generally recommended for Orchideæ will answer for this genus. They grow freely in a moist stove. Give them a season

of rest, and remove them to a dry airy place; use shallow pots, and give abundance of drainage.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Coryanthes maculata*—Demerara—1837—Root.

Yellow flowers, much spotted; lip singular, yellow striped, and spotted with deep red; flowers on a pendent stem.

— *macranthus*—Trinidad—1835—Division.

Flowers yellow, much spotted with deep red; lip a singular yellow and clouded.

— *speciosa* and *speciosa alba*.

Both these bear a strong resemblance to *Coryanthes maculata*, but differ in colour.

This genus grows best suspended.

*Cynoches Loddigesii*—Surinam—1830—June.

Flowers green spotted with red; very fragrant.

— *ventricosum*—Guatemala—1835.

A singular green and white flower: for treatment, see CATASETUM.

— *maculatum*.—La Guayra—1829.

Flowers a dull yellowish brown, spotted with brownish red: a fine and very singular species.

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*Class*, GYNANDRIA.

*Order*, DIANDRIA.

*Cypripedium insigne*—Nepaul—1837—January—Root.

Petals greenish, tipped with white; flowers much spotted with reddish brown; rest of the flower

greenish brown, and yellow inside, streaked with purple.

*Cypripedium venustum*—Nepaul—1816—July to August—Root.

A neat species; flowers bright green, tip with purplish red; lips curiously marked with the same colour.

— *purpuratum*—Malagar Archipelago—1835—November—Root.

A fine species, resembling *venustum*; sepals white, marked with reddish purple petals, and lip purple.

This genus grows well in fibrous peat, (the more fibrous the better) with a little fibrous loam added. It is necessary to give good drainage: these plants do not require that heat which most *Orchideæ* do.

*Venustum* will grow well in a greenhouse.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Cymbidium bicolor*—Ceylon—1828—Root.

Streaked and stained with deep crimson: a beautiful species.

— *aloefolium*—China—1790—Autumn—Root.

Flower a ruddy blue, striped and marked with dull red.

— *Sinense*—China—1793—Sept. and Dec.

Flower a greenish yellow, marked and spotted with dark brown: a very fragrant species.

*Cymbidium lancifolium*—India—1822—August—  
Root.

Sepals and petals white ; lip white, and much spotted.

— *pendulum*—Sylhet—1837—August—Root.

Flowers a dirty yellowish brown ; lip of a clear red and white, adding much to its beauty.

This genus grows freely in sandy peat, rough leaf soil, and the fibry part of sandy loam, to which add a little sand, and give good drainage.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Cyrtopodium Andersonii*—West Indies—Spring—  
Division.

Sepals and petals yellow ; lip much darker ; a stem of many flowers.

— *Woodfordii*—Trinidad and Brazil—1837-8—  
Division.

Sepals and petals green ; lip purple : a good species, flowering on a long erect stem of many blossoms.

— *punctatum*—Brazil—1835—Spring—Divis.

Sepals and petals yellow, the latter spotted with red and purple : a very good species.

— *Wilmorei*—Venezuela—June and July—  
Division.

Grows four feet high ; sepals and petals yellowish green, spotted with dull red ; lip pale red and yellow, slightly spotted.

*Cyrtochilum flavescens*—Mexico—1830—June.

Yellow flowers; lip marked with red; a very good species.

—— *mystacinum*—Peru—1837—October.

Flowers yellow.

—— *stellatum*—Brazil—1840—September.

Blooms on a beautiful spike of white flowers, with lip resembling *Cyrtochilum flavescens*; but its stature is four times as large.

—— *maculatum*—Vera Cruz—1836—August.

Flowers greenish yellow, blotched with deep purple; lip white, stained with dull red.

*Cyrtochilums* require a moist stove; they do well in a low temperature, and delight in light tufty peat, sphagnum, and potsherds.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Dendrobium moniliforme*—China—1824—Winter—Division.

Sepals and petals a fine purple; lip a beautiful rose carmine.

—— *Languicornu*—India—1838—Division.

This species grows freely in fibry peat, mixed potsherds and sphagnum; its flowers are white.

—— *chrysanthum*—Nepaul—1828—Division.

Large yellow flowers. This is a fine species, blooming abundantly when grown strong.



*Dendrobium Pierardii*—East Indies—1835—Feb.

—Division.

Sepals and petals a delicate pink; labellum yellow: it flowers abundantly.

— *cucullatum*—East Indies—1835.

This species resembles the last.

— *fimbriatum* — Nepal — 1823 — June — Division.

Deep yellow flowers; the margin of its lip is beautifully fringed. A very good species.

— *macrostachyum* — Ceylon — 1829 — June — Division.

Pale yellow flowers, resembling *D. Pierardii*, in habits.

— *pruncatum*—Peru—1828—May—Division.

Flowers deep yellow; inside of the lip beautifully feathered with crimson, and slipper shaped.

— *pulchellum*—India—1830—Feb. and March —Division.

Sepals and petals a delicate blush white, shaded with pink; lip white, yellow and pink.

— *densiflorum*—India—1829—May—Division.

Flowers yellow: a very good species.

— *aggregatum*—India—1833—March—Divis.

Yellow flowers: a fine species.

— *Cupræum*—E. Indies—1825—June—Divis.

Flowers yellow, beautifully tinged with red.

*Denbrobium formosum*—E. Indies—1837—May  
—Division.

Flowers pure white and transparent; most splendid.

— *candidum*—E. Indies—1837—April—Divis.

Flowers pure white; of the habit of *D. Nobile*: erect, very fragrant.

— *nobile*—India—1836—March—Division.

Sepals and petals of a most delicate flesh colour: splendid.

— *Gibsonianum*—India—1837—Divis.

Sepals and petals a fine yellow; lip yellow, with two dark spots on its base.

— *sulcatum*—India—1837—April—Division.

Sepals and petals deep yellow; lip shaded with darkish crimson: a good species.

— *macrophyllum*—Manilla—1837—Division.

Sepals and petals a bright rose; lip downy, stained with two large blood red blotches at the base.

— *Paxtonia*—India—1837—April—Division.

Flowers orange yellow; lip a deep brown, spot in the middle.

— *Jenkinsii*—India—1836—Sept.—Division.

The flowers are a beautiful deep yellow; lip furnished with a delicate down on its margin: these are a most splendid collection, being some of the very best of this genus.

This extensive genus grows freely potted in light mossy peat, chopped sphagnum, and potsherds. The pendent varieties, such as *Pierardii*, *Cuculata*, *Macrostachya*, &c., &c., are much better suspended either in baskets or shallow pots. The smaller varieties, such as *Jenkinsonii*, *Aggregator*, &c., &c., grow well upon blocks of wood suspended from the roof of a moist house. Give a liberal supply of water when growing, gradually diminishing it as they perfect their growth.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Epidendrum variegatum* — Rio Janeiro—1830—January—Division.

Sepals and petals of a yellowish green span-  
gled with dark purple spots : a beautiful species.  
—— *cochleatum*—W. Indies — 1786 — September  
——Division.

Sepals and petals yellowish green ; lip purple,  
striped with darker colour.  
—— *pastoris*—Mexico—1837—Jan.—Division.

Flowers a dingy olive colour, having a pow-  
erful fragrance resembling *Vanilla*.  
—— *vitellinum*—Mexico—1838—Sept.—Divis.

Flowers orange : a beautiful species.  
—— *nocturnum* — W. Indies—1816—Autumn—  
Division.

Flowers yellow ; scentless by day, but during

the night has a powerful scent, resembling the white lily.

*Epidendrum oncioides* — S. America — 1836 — June—Division.

Flowers yellow, much clouded and marked with red : a beautiful and fragrant species.

— *bicornutum*—Trinidad — 1831—April — Division.

Flowers large white, slightly spotted, two niches across, resembling a *Cattley* ; slightly fragrant.

— *stenopetalum* — Jamaica — 1834 — February and March—Division.

Flowers white and rose : continues long in flower.

— *gracile*—Bahamas—1833—Sept.—Division.

Flowers yellowish green, marked with red ; lip bright yellow, pencilled with scarlet.

— *macrochilum*—México—1836—June—Divis.

Sepals and petals of a greenish brown ; lip white, having a large reddish purple spot at the base : a fine species.

— *Skinnerii*—Guatemala—1834—Jan.—Divis.

A neat species of a beautiful red colour.

— *papillosum*—Mexico—1837—June and July —Division.

Sepals and petals yellowish green ; lip white, with three rose-pink stripes.

*Epidendrum aurantiacum*—Guatemala—1838—Division.

Sepals and petals of an orange colour ; lip the same, striped with crimson.

— *Schomburgkii*—British Guinea—1836 — Division.

Flowers an animating scarlet ; lip three lobed, finely fringed, resembling in habit *E. elongatum*.

— *Ionosmum*—Essequibo—1837—Division.

Flowers of a dull reddish green ; lip delicately streaked with black : fragrance like the violet.

— *aromaticum* — Guatemala—1838—Summer—Division.

Flowers yellow ; lip margined with red.

— *fulcatum*—Oaxaca, Mexico—1836—Divis.

Flowers yellow : a fine species.

This numerous genus succeeds well in turf peat and potsherds ; if the peat contains a little sphagnum, not too much decayed, it will be much better, and when it does not contain any, chop a little and add it to the peat. They require a good supply of water when growing freely, but a little only when at rest, withholding it altogether when in a dormant state for a few weeks.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Eria stellata*—Nepaul—1824—Division.

Flowers a yellowish white; lip light yellow, spotted with red.

— rosea—China—1824—Division.

Flowers rosy pink and white, small, but very pretty.

There are many more of this genus, which are more curious than pretty.

The *Eriæ* tribe require a mixture of tufty peat, rough lumps of decayed wood or bark, an inch square, and potsherds; this composition is only for such plants as are grown in pots. If it be required to suspend them from the roof of the house, rough baskets made of bark will answer best; thus treated, they flower more freely than when in pots. It may not be unnecessary to remark in this place, that slugs delight to feed on Orchideæ plants, and consequently must be guarded against. The best preventive is to plunge the materials used for the growth of these plants into boiling water previous to planting, allowing such to remain in the water until they are hot quite through, which will not only destroy the young slugs, but also the ova, and thereby prevent much mischief. Should this precaution have been neglected, and the slugs are damaging the plants, plunge them over head in water heated to about 80° Fahrenheit; allow them to remain in the water a few minutes, so that the



slugs may leave the plants, which they will readily do.

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*Class, GYNANDRIA.*

*Order, MONANDRIA.*

*Eulophia ensata*—Sierra Leone—1822—Division.

Flowers yellow, somewhat pretty.

— *streplopetala*—S. America—1820—Division.

Sepals green, petals yellow ; lip yellow and white.

— *Guineensis*—Sierra Leone—1822—Root.

Sepals and petals green ; lip large and of a white colour.

— *macrostachya* — Ceylon — 1836 — November and December—Division.

Sepals and petals green ; lip yellow, marked with bright red.

This genus succeeds well in tufty sandy peat and a portion of potsherds. They require a good drainage and a large supply of water when in a growing state.

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*Class, GYNANDRIA.*

*Order, MONANDRIA.*

*Galeandra Banerii*—Mexico.

Sepals and petals green, shaded at the base with purple ; lip of a purplish rose and whitish colour : a fine species.

— *Devonianum*—Rio Negro—1840.

Flowers of a rich purplish brown, with a beau-

tiful white spoon-shaped lip, streaked with crimson.

Galeandra succeeds well in tufty peat, chopped sphagnum, and potsherds. They require a moist stove, and a liberal supply of water when growing; but care must be taken not to pour it upon the plants in such a manner as to allow it to remain in the sockets of the leaves, so as to cause them to damp off, and finally lose the plant. Give them a season of rest, as recommended for *Catasetum*.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Gongora atropurpurea* — Trinidad — 1824 — June and July — Division.

A brown purple flower spotted with a darker colour.

— *nigrita* — Demerara — 1837 — Division.

Flowers of a deep prune coloured velvet.

— *maculata* — Demerara — 1822 — May — Div.

Flowers of a fine orange, much spotted with deep red.

— *fulva* — Demerara — 1836 — July — Division.

Flowers a dingy yellow, thickly spotted with brown.

This genus requires a light fibry peat, potsherds, and a portion of sand; owing to the long pendent racemes of this tribe, it is necessary to grow them in baskets or pots, which may be conveniently sus-

pended from the roof. When in flower they require a moist atmosphere, and a good supply of water when in a vigorous growing state, but very little when dormant.

*Govenia superba*—Mexico—1833—February.

Flowers yellow, very curious and handsome.

— *liliacea*—Mexico—1840.

Flowers white, marked with pale purple: a neat species.

— *lagenophora*—Mexico—1836.

Flower white, upon a stem three feet high, bearing from thirty to forty flowers.

This genus delights in a compound composed of leafy soil, half decayed sandy peat, and the fibry part of sandy loam, of each equal parts, to which add potsherds and a little white sand. When growing they require a moist atmosphere, a liberal supply of water, and a season of rest. When dormant withhold water altogether, and place them in a cool house.

*Grammatophyllum multiflorum*—Manilla—1838—May.

Sepals and petals a deep brownish red edged with green; lip yellowish white.

This genus succeeds well when potted in light mossy peat and potsherds, placed in a moist stove with a moderate degree of shade; it also does well by folding its roots in moss and suspending it from

the roof of the house, keeping it moist as before. This also requires a season of rest.

*Grobya* Amhersta—Brazil—1829—September.

Flowers yellow, mottled, and shaded with red.

This genus thrives well either on blocks of wood or suspended from the roof of the house. When grown in baskets, use mossy peat and a large portion of potsherds: treated thus it will succeed much better than when grown in pots the ordinary way and placed on the stage.

*Huntleya* Meleagra—Brazil—1839.

Large yellowish white flowers tinted with purple, streaked with deep rose; lip same colour, having a broad fringe, &c.

— violacea—Guiana—1835.

Flowers a deep rich violet tipped with greenish yellow melting down into white. A fine species.

These require a moist stove, suspended from the roof of the house, either in baskets or on blocks of wood. Give them a season of rest.

*Lælia* anceps—Mexico—1828—December.

Flowers large and of a pinkish purple colour; lip crimson purple; throat yellow and beautifully marked with red,

— anceps *var.* Barkeriana—Mexico—1833—December.

Flowers a delicate black; lip deeply margined with fine purplish crimson.

*Lælia autumnalis*—Mexico—1836—Autumn.

Sepals and petals a beautiful purple; lip white, yellow, and purple.

—— *albida*—Oaxaca—1838.

Flowers white, except a bright streak down the centre of the lip, and a few crimson spots or dots.

—— *Purpuracea*—Mexico—1837—November.

Sepals and petals a beautiful rose tinged with fine blue; lip nearly purple rose.

—— *majalis*—Mexico—1839.

Flowers a beautiful violet, six inches across: a most splendid species.

—— *flava*—Mexico—1839—Autumn.

Flowers yellow; a beautiful and engaging species.

—— *tubescens*.

Flowers delicate white, tipped with pink.

—— <i>Cinnabarina</i> ,	} are two splendid and ele-
and	
—— <i>superbiens</i> ,	

gant species.

The cultivation of this genus is rather difficult to bring them to perfection; *lælias* do not require so great a heat as the greater part of *orchideæ* do, therefore the most airy part of the house should be chosen for their reception; at the same time, it must be a place where they will receive the sun's rays, for they like not the shade. They require to be grown upon logs of wood and kept moist during their sea-

son of vegetation. Whenever it is convenient, place them over a cistern of water, where they may be allowed to remain until they have perfected their growth; after which remove them to a cooler house and give but little water. When treated as above directed, they grow and flower very freely.

*Leptotes bicolor*—Brazil—1834—April.

Sepals and petals white; lip a beautiful red : a neat species.

This genus flourishes well upon rough barked logs of wood : when grown in pots they require moss, peat, and potsherds. When growing, they must be placed in a moist heat, and in the dry stove when dormant.

*Class*, GYNANDRIA.      *Order*, MONANDRIA.

*Maxillaria graminea* — Demerara — 1834 — January—Offsets.

Flowers pale yellow.

— *Harrisoniæ*—S. America—1835—Offsets.

Sepals and petals yellow and white lip ; marked with red.

— *Aromatica*—Mexico—1836—May—Offsets.

Flowers fine yellow : a very fragrant species.

— *Barringtoniæ*—Jamaica—1820.

Flowers large, muddy yellow ; lip ciliated.

— *Deppii*—New Spain—1828—June—Div.

Sepals a dingy green spotted with purple, petals white, lip yellow and spotted with purple.



*Maxillaria ochroleuca*—Brazil—1830—Autumn—  
Division.

Sepals and petals yellowish white, lip yellow.

— *Parkeri*—Demerara—1836—Sept.—Div.

Flowers yellow.

— *picta*—Brazil—1830—Autumn—Division.

Sepals and petals yellowish white, lip yellow.

— *punctata*—Brazil—1828—November and December—Division.

Sepals and petals slightly spotted with red, lip yellow.

— *stapelioides*—Brazil—1835—Spring—Div.

Sepals and petals green, much spotted and streaked with brown purple; lip white, much blotched, and streaked with purple.

— *lentiginosa*—Brazil—1838—Division.

Much like the last mentioned species: sepals being more acute, and the purple spots deeper, more distinct, and less rim; lip same colour.

— *viridis*—Rio Janeiro—1834—May—Div.

Flowers green, lip muddy purple and spotted.

— *Warreana*—Brazil—1829—Aug.—Division.

Sepals and petals beautifully marked with red: a fine species.

— *Skinneri*—Guatemala—1840—Division.

Flowers deep yellow; lip fine purplish white, centre tinged with deep rose: a fine species.

*Maxillaria atrapurpurea*—Brazil—1823—July and August—Division.

Flowers very dark purple, with a little white on the lip.

— *cristata*—Trinidad—1834—July—Div.

Sepals and petals white, much braided and spotted with crimson ; inside of the lip bearded, of a crimson colour : fine species.

— *Steelii*—Demerara—1836—Sept.—Divis.

Sepals and petals pale yellow, blotched with dark red lip.

— *aureo-fulva*—Rio Janeiro—1828—Division.

Flowers fine golden brown, in a raceme of several flowers.

— *Rollissonii*—Brazil—1837—Aug.—Divis.

Flowers yellow ; lip spotted with red : a neat species.

— *vitellina*—Brazil—1836—June—Division.

Flowers fine yellow, having a rich brown spot on the lip.

— *murophylla*—Columbia—1838—September—Division.

Sepals and petals green ; outside dull purplish brown ; inside petals pale straw ; lip dotted with rose.

— *tenuifolia*—Mexico—1838—Division.

Sepals and petals scarlet, green, and yellow ; much spotted with crimson ; lip yellow and scarlet spotted with crimson : a fine species.

*Maxillaria Mackaii*—Guatemala—1839—Aug.—  
Division.

Sepals and petals of a rich reddish brown ;  
lip whitish with deep maroon spots.

Most of this genus succeed well in brown peat, having plenty of fibres in it. In general, the more fibrous the soil the better it is for all orchideæ. Drain the pots well : it is better to have a small pot inverted over the hole of the one in which it is intended to set the plant, and to fill up level to the inverted pot with potsherds, placing the large ones round the bottom, and the smaller ones at the top : this allows the free moist vapours to have free access to the roots of the plants.

Elevate the plant above the rim of the pot ; the larger the plant is, the greater elevation it will require.

*Max. Steelii* is much better suspended in a wire or wooden basket, as its long rush-like pendent leaves are then seen to the best advantage. The plants should be elevated high, above the rim of the basket.

*Max. Rollissonii* and *Stapelioides*, with most of smaller species, succeed much better when grown on wood, securing a little peat or sphagnum over the roots ; the greater part of them require a hot and moist atmosphere. When growing, give a good supply of water, but diminish it when they have perfected their growth, and withhold it by

degrees for a few weeks when in their dormant state.

*Miltonia spectabilis*—Brazil—1835.

Sepals and petals white; lip beautifully shaded with lilac and crimson.

— *candida*—Brazil—1839—September.

Sepals and petals a rich yellowish brown; lip pure white, spotted with bright pink; flowers large: a beautiful species.

This noble genus flourishes well in a mixture of fibry brown peat, chopped sphagnum, and potsherds. Elevate the plants above the rim of the pots, and place them in a moist house when growing. When they have perfected their growth, give them a season of rest; but do not withhold water from them altogether, or they will dry and shrivel up, to the injury of this genus.

Pots or baskets suspended from the roof of the house suits these the best.

*Mormodes atropurpurea*—Spanish Main—1834—December.

Flowers in bundles, of a rich purple.

— *pardina*—Oaxaca—1839—July.

Flowers a primrose colour spotted with reddish purple in every part; delightfully fragrant.

*Monochanthus discolor*—Demerara—1833—October and November.

Flowers green, red, and white: a very singular species.

*Monochanthus virides*—Brazil—November.

Sepals and petals green, spotted with red ; lip green, inside deep yellow.

*Monochanthus* requires a mixture of tufty peat, sphagnum and potsherds, with perfect drainage. Give water plentifully when they are in a vigorous growing state, after which it must be gradually diminished : give them a season of rest, and withhold water altogether from some of the strongest plants.

*Myanthus barbatus*—Demerara—1834—February.

Sepals and petals green spotted with red ; lip bright pink and curiously bearded ; hood crimson.

—— *barbatus*, (*La Bella alba*)—Demerara—1835 May.

Sepals and petals yellowish green, and spotted with deep red ; lip white.

—— *cerunus*—Rio Janeiro—May.

Flowers green spotted with red.

—— *deltoides*—Demerara—1835—October.

Sepals and petals green, spotted with red ; lip a yellowish green, spotted with red : a curious and neat species.

This genus requires the same treatment as *Catasetum*. Dr. Lindley includes this genus with *Catasetum*.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Notylia-punctata* — Trinidad—1822—August and September—Division.

Flowers a pale green and white, spotted with yellow : very fragrant.

—— *Barkerii*—Mexico—1827—Division.

Small yellow flowers.

This genus is not very attractive in the flowers, but most of the species are very fragrant.

These plants require to be fixed to a piece of wood, and suspended from the roof of the house. Give a good supply of water when growing. They require a season of rest, at which time care must be taken not to keep them too dry.

*Odontoglossum cordatum*—Mexico—1840—Div.

Sepals and petals yellowish green, ground richly blotched with brown ; lip white, with a purplish crest.

—— *Rossii*—Mexico—1840.

Sepals green spotted with red ; petals with their base spotted with red ; lip white : a beautiful species.

—— *maculatum*—Mexico—1837.

Inside of the flowers dull red, outside green ; petals and lips yellow, spotted with red.

—— *grande*—Guatemala—1840.

This class of Orchideæ does much better upon wood than in pots ; they must be suspended from the roof of the house. Should it be desirable to



grow them in pots or baskets, use the following composition. Light tufty peat, chopped sphagnum, and potsherds; give good drainage, and raise the plant above the rim of the pot or basket, suspending them from the roof of the house. When growing, they require a liberal supply of water, which must be gradually diminished after they have arrived at perfection, taking care not to dry them so much as is recommended for some of the stronger tribes.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Oncidium pubes*—Rio Janeiro—1814—Division.

Sepals and petals green, mottled with light brown; lip light yellow, margined with red: a neat species.

— *divaricatum*—Rio Janeiro—1825—Division.

Flowers yellow, spotted with red; lip yellow, clouded with scarlet.

— *papilio*—Trinidad—1823—Most of the season—Division.

Flowers yellow, marked with fine brownish red; lip yellow, much spotted and marked with bright red.

— *luridum var. guttatum*—West Indies—1834—Division.

One of the finest varieties of *Orchideæ luridum*. Flowers pale greenish yellow finely spotted with light red.

*Oncidium Bauerii*—West Indies—1793—August and September—Division.

Flowers, a greenish yellow clouded with purplish red ; sepals and petals green outside.

—— *ampliatum*—South America — 1833 — Feb. — Division.

Flowers yellow, pale at the outside, and dark inside : a fine species.

—— *bifolium*—Monte Video — 1812 — March — Division.

Flowers a fine bright yellow, spotted with brownish red : a beautiful species.

—— *Carthagenense*—West Indies—1791—June—Division.

Flowers a rusty greenish yellow, spotted and marked with brownish red.

—— *citrinum*—Trinidad — 1834 — Nov.—Divis.

Flowers yellow, spotted with red : a neat species.

—— *Cornigerum*—Brazil — 1834 — Aug.—Divis.

Flowers yellow, spotted with red : a fine species.

—— *crispum*—Brazil—1831—May—Division.

Flowers a fine chestnut, and spotted throat of the lip yellow : a good species.

—— *Lemonianum*—Havannah—1835—May—Division.

Flowers yellow and slightly spotted.

—— *lanceanum* — Surinam — 1834 — August and September.

Sepals and petals a fine greenish yellow,

spotted and marked with purplish red; lip of a pale rose purple: very fragrant: one of the finest species.

*Oncidium flexuosum*—Brazil—1818—Spring—  
Divis.

Flowers a fine yellow, marked slightly with red.

— *divariatum*—Brazil—1825—July and August—Division.

Flowers a pale green and red.

— *Harrisonianum*—Brazil—1830—Spring—Division.

Flowers a fine yellow, neatly marked with red.

— *sanguineum*—La Guayra—1837—May—Division.

Flowers a straw colour, stained with crimson blotches: a fine species.

— *pulchellum*—West Indies—1830—March—Division.

Flowers a delicate white, clouded with pale pink and yellow: very fragrant.

— *triquetrum*—Jamaica—1793—July and October—Division.

Sepals purplish green; petals white and tinged with pale green, variously spotted with purple.

— *ornithorhynchum*—Mexico—1836—July and August—Division.

Flowers a purplish rose on a large pendent panicle: a neat species.

*Oncidium cebolleta*—Spanish Main—1835—February—Division.

Sepals and petals yellowish green; lip yellow.

—— *tetrapetalum* — Jamaica — 1824 — June and July—Division.

Flowers yellow: a small species, but exceedingly pretty.

—— *iridifolium*—Mexico—1836—Aug.—Divis.

Flowers bright yellow, and slightly spotted with red.

—— *lunatum*—Demerara—1836—June—Divis.

Flowers bright yellow, slightly spotted and blotched with red, resembling *Harrisonianum*.

—— *Russelianum*—Rio Janeiro—1835—Division.

Sepals and petals a dull red; lip purplish red, marked with white: a pretty species.

—— *altissimum* — Jamaica — 1830 — Spring — Division.

Sepals and petals green, clouded with purple; lip yellow.

—— *deltoideum*—Peru—1836—October and November—Division.

Flowers yellow, with marks of red on the lip.

—— *leucochilum* — Guatemala — 1835 — August and September.

Flowers white and green, spotted with red.

—— *stramineum*—Vera Cruz—1837—Division.

Sepals and petals neatly dotted with brown.

*Oncidium Cavendishii* — Guatemala — 1836 — January—Division.

Flowers of a yellowish green : a fine species.

—— *pulvinatum*—Brazil—1834—May—Division.

Sepals and petals yellow, coloured with scarlet ; lip yellow, spotted with scarlet.

—— *trulliferum*—Brazil—1837—Sept.—Divis.

Flowers yellow, marked with large blotches of bright red.

—— *Forbesii*—Brazil—1837—Division.

Large yellow white flowers, neatly covered with rich crimson.

—— *Tusleayi*—Mexico—Division.

Large yellow flowers, much marked with crimson, similar to *O. papilio*.

This genus delights to grow in a composition composed of chopped sphagnum, tufty peat, and potsherds. Give good drainage, and elevate the plant above the rim of the pot : those of the weakest kind succeed best upon wood. For the pendent racema varieties use shallow pots or baskets. A moist stove suits them best when growing, and a cool house when dormant. Previous to vegetation, they may be repotted without injuring the roots.

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*Class*, GYNANDRIA.      *Order*, MONANDRIA.

*Ornithidium Coccineum*—West Indies—1790—December and January—Division.

Flowers reddish scarlet.

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*Class*, GYNANDRIA.      *Order*, MONANDRIA.

*Ponthievæ glandulosæ*—West Indies—1800—Jan. to March—Division.

Flowers green.

*Paxtonia rosea*—Manilla—1838—June.

Flowers purplish lilac, resembling some of the *Bletias*.

This genus flourishes well in tufty sandy peat, sandy loam, and a portion of potsherds. Give good drainage, and a large supply of water when growing; but when they have reached perfection, gradually diminish, and finally place them in a cool house, or upon some dry back shelf, where little or no moisture can reach them. Suffer them to remain in this dormant state for several weeks, being guided by the strength of the plants; some require greater caution than others. They do not require that degree of heat which is necessary for some of the Orchideæ.

*Peristeria elata*—Panama—1826—May to August.

Flowers very fragrant. In New Spain, this species is called Holy Spirit, from its resembling a dove.



*Peristeria pendula*—Demerara—1835—January.

Sepals and petals of a greenish white, inside a pale blush, spotted with purple; lip dingy white.

—— *cerina*—Spanish Main—1836—June.

Flowers yellow, hanging in a pendent direction.

—— *Barkerii* — Mexico — 1837 — July and August.

Flowers deep yellow; lip slightly spotted with reddish purple.

The culture of this tribe is very easy: they delight in fibry peat, chopped sphagnum, and small potsherds. Elevate the plants above the rim of the pots in the shape of a cone. Those which have pendent flower-stems require to be grown in pots or baskets, such as *P. pendula*, *Barkerii*, &c., particularly the last mentioned species, for if the flower-stems, which protrude through the soil, should be impeded in their progress, they are subject to be destroyed for the want of a place of egress.

*Phajus albus*—Nepaul—1837—July.

Sepals and petals white; lip white, delicately veined with red: a neat species.

—— *bicolor*—Ceylon—1837.

Sepals and petals deep red; lip yellow: one of the handsomest of this genus.

—— *Wallichii*—India—1840.

*Phajus maculatus*, or *Bletia Woodfordii*—Nepaul—  
1823—January and June.

Large deep yellow flowers : a beautiful species.  
—— *grandiflora*—China—1778.

The two last mentioned species and their allies require fibry peat, chopped sphagnum, and small potsherds. Elevate the plants above the rims of the pots.

*P. albus* delights in brown fibry peat, potsherds, and a little cally sand. Give good drainage, and a liberal supply of water when in a vigorous growing state, but withhold it altogether when dormant. Previous to their season of rest repot them.

*Phalœnopsis amabilis*—Manilla—June.

Sepals and petals white ; lip white and yellow, lined with deep rose ; flowers very large.

This plant is also called the Indian Butterfly. The specimen plant of this genus was sold by Messrs. Rollinson for fifty guineas only a few months back.

*Phalœnopsis* succeeds best on blocks of wood suspended from the roof of the house ; it requires a moderate supply of water, and grows vigorously when suspended over a cistern of water. When dormant, remove it to a cool house, or to the most dry, cool, and airy part of the house.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Renanthera coccinea*—China—1816—March, May, and September—Cuttings.

Flowers a beautiful crimson in large racemes, two feet and a half long.

This genus does well planted in pots of fibry peat, potsherds, and a thick piece of rough barked wood for the roots to adhere to, covering the roots with moss as the plant advances in growth. It requires a moderate degree of moisture when in a vigorous growing state, but not to such a degree as is recommended for some of the Orchideæ tribe.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Rodriguezia secunda*—Trinidad—1818—October—Cuttings.

Flowers a fine red, in pendent spikes of many blooms.

— *planifolia*—Brazil—1835—Feb.—Cuttings.

Flowers purple, violet, and white.

— *crispa*—Brazil—1839—Nov.—Cuttings.

Flowers a greenish colour, very fragrant.

This genus does remarkably well either on logs of wood, or potted, and suspended from the roof of the house: when grown in pots the following composition will answer best: brown tufty peat, chopped sphagnum, and potsherds; but if on blocks of wood, it is only necessary to cover the roots with

a little moss kept moderately moist : give them very little water when dormant.

*Saccolabium calceolare*—East Indies—1837.

Flowers yellow, blotched with brown : a small fragrant species.

— *densiflorum*—Manilla—1837.

Flowers small, of a pale dull brownish yellow.

— *compressum*—Manilla—1838.

Flowers on a drooping raceme ; sepals small, blotched with crimson, with a long ivory-like spike.

— *pupillosum*—India—1830—Aug. and Sept.

Flowers in small bundles, yellow, and spotted with red.

— *bifidum*—Manilla—1837—December.

Flowers in a pendulous raceme of a pale pink and yellow.

This genus succeeds well either on logs of wood or in baskets ; in the latter, fibry peat, chopped sphagnum, and potsherds answer best : when grown on logs of wood, cover the roots with hypnum moss ; they require a moist house and a moderate supply of water when growing, but very little when at rest.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Sarcanthus paniculatus*—China—1830—May and June—Division.

Flowers a deep yellow, marked with brownish red.

*Sarcanthus guttatus*—India—1820—Division.

Sepals and petals white, spotted with rose; lip rosy purple: a lovely species.

— *rostratus*—China—1821—Aug.—Cuttings.

Flowers in pendent racemes, of a yellowish colour and striped with red.

— *teretifolius*—China—1819—Nov.—Cuttings.

Flowers yellow and purple, striped with red; lip white, two lobes edged with red.

These require the same treatment as the last mentioned genus, viz. *Saccolabium*.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Sarcochilus falcatus*—New Holland—1821—April—Division.

Flowers white: a neat species.

— *unguiculatus*—Manilla—1839—August—Division.

Flowers a light straw colour; lip white, streaked and dotted with crimson.

This genus requires the same treatment as the generality of *Orchideæ* plants.

*Stanhopea eburnea*—Rio Janeiro—1834—From July to October.

Flowers yellowish white; lip marked and spotted with reddish purple: a fine species.

— *grandiflora*—Trinidad—1824—June to Oct.

Flowers white; lip shaded with pink: very fragrant.

*Stanhopea insignis*—S. America—1826—July.

Sepals yellow, petals white ; both spotted with purple ; lip whitish, spotted and blotched with purple.

—— *insignis lutea*—Brazil—1834.

More yellow than the last mentioned species.

—— *oculata*—Mexico—1829—July.

Flowers a cream colour, spotted with purple ; lip yellow and white, with two large spots resembling an eye : a beautiful species.

—— *quadricornis*—Spanish Main—1836.

Flowers a deep yellow, slightly spotted with crimson ; lip beautifully marked and spotted with crimson.

—— *tigrina*—Mexico—1835.

Flowers deep yellow, much blotched and marked with deep purple : a most splendid species.

—— *maculosa*—Mexico.

Flowers resembling *S. tigrina*, but much smaller and less marked.

—— *martiana*—Mexico—1837—May.

Sepals straw colour, faintly spotted with pale red ; petals white, with large spots of crimson ; lip clear ivory white.

—— *graveolens*—Peru—1838—August.

Petals a delicate straw colour ; lip deep yellow, similar to *S. saccotæ*.

—— *Wardii*—Guatemala—1837.



*Stanhopea aurea*—Guatemala—1840.

A new and very fine species.

To grow this genus in pots, they require to be raised eight or ten inches above the rim. It is easily done by placing pieces of peat (cut about an inch square) together in such a manner as to form a cone. Should wire baskets be thought preferable to pots, they should be about an inch mesh, in order that the flower stems may have free egress through the mesh of the basket, otherwise they will be impeded and ultimately lost. Suspend them from the roof of the house.

Give a liberal supply of water when in a vigorous growing state, and gradually diminish it after they have arrived at perfection. When in a dormant state, if convenient, remove them to a cool house of not less than 50° of heat. Put them upon a dry shelf for a few weeks, and give them no water except they be very weak.

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*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Stenorhynchus speciosus*—West Indies—1790—January—Division.

Flowers violet and scarlet: a neat species: grows well in peat.

*Trichophilia obtusum*—Demerara—1834—Jan.

Flowers yellow, green, and orange: more curious than pretty.

*Trichophilia* grows well in brown tufty peat,

having plenty of fibres in it, the more the better, mixed with a portion of potsherds. Elevate the plant above the rim of the pot.

*Trigonidium obtusum*—Demerara—1834—Aug.

Flowers a yellow, green, and orange colour.

— *Egertonii*—Honduras—1836.

This genus grows freely in light tufty peat. A good drainage, and a liberal supply of water, gradually diminishing it after they have perfected their growth. Give a season of rest, but not too long, otherwise the plants will receive injury.

*Trichocentrum fuscum*—Mexico—1836—July.

Sepals and petals brown and green; lip white, and beautifully marked with crimson: a neat little species.

— *iridifolium*—Demerara—1836.

Flowers a pale yellow; lip delicately streaked with a darker colour.

This tribe grows freely potted in light tufty peat. Give good drainage, and place them in a moist stove: they require a liberal supply of water, gradually diminishing it after they have perfected their growth. Give them a season of rest, taking care not to over dry them.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Vanilla planifolia*—West Indies—1800—Jan. and Feb.—Cuttings.

Flowers white; lip dotted with yellow.

*Vanilla aromatica* — S. America — 1793 — July and August—Cuttings.

Flowers white.

—— bicolor—Guiana—April—Cuttings.

Sepals and petals red ; lip cream colour : a delicious fragrant scent.

These delight in fibrous peat and potsherds : they being of a climbing genus should be placed near the wall, so that they may cling to it. They require great space to flower them well.

*Class*, GYNANDRIA.

*Order*, MONANDRIA.

*Zygopetalum Mackeyi*—Brazil—1825—Division.

Sepals and petals green, spotted with red ; lip white, marked with reddish purple.

—— *crinitum*—Brazil—1829—Aug. and Nov.—Division.

Sepals and petals green, spotted with purplish brown ; lip streaked and spotted with purple.

—— *cochleare*—Trinidad—1835—Sept.—Divis.

Sepals and petals greenish white ; lip white and purple, branded and spotted with purple.

—— *maxillare*—Rio Janeiro—1829—Aug.—Divis.

Sepals and petals green, spotted with red ; lip blackish purple.

—— *rostratum*—Demerara—1827—Oct.—Divis.

Flowers white, purple, and brown.

—— *stenochilum*—Brazil—1828—Oct.—Division.

Sepals and petals green, and spotted with

red; lip white, beautifully marked with dark purple.

The strongest varieties of this genus, such as *Z. Mackayii*, grow freely in light peat and potsherds, mixing therewith a little sand and the rough fibry part of sandy loam. The more delicate varieties, such as *Z. maxillare*, *Z. cochleare*, &c., grow best in fibry peat and potsherds. Give a liberal supply of water when growing: they also require a moist house. Allow them a season of rest.

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Mr. Saynor, Gardener at Spofforth, the seat of the Rev. W. Herbert, has constructed a tree for the growth of Orchideæ, which is an excellent plan for the purpose; its construction is as follows:—Take an upright piece of oak, six or seven inches in diameter, its length corresponding with the size and height of the situation in which it is to be placed. Drive an iron pin into each end, and fix it to the rafter, and a block at the bottom, having the hole in each sufficiently large to permit the tree to be turned round at pleasure; to this nail pieces of rough barked oak wood, about a foot long. Form as many angles as you can, fix the plants in these, and turn the tree round two or three times during the day, so that each variety may have its due proportion of light and shade.

J. SAYNOR.

Orchideæ require a certain degree of shade. Some persons grow them in a north aspect, but I prefer Messrs. Loddiges' mode of giving shade to any other I ever saw: it is by placing the plants on the north side of their palm house: in this situation they receive that kind of shade which they have in their native country. When I saw the plants they were in fine condition.

SEASON OF REST.—It is highly beneficial to give the plants a season of rest, as by it they are not so much exhausted as when continually excited with heat and water. It is usual to put them on shelves in the house when in a dormant state; and, where convenient, the heat should be from  $55^{\circ}$  to  $60^{\circ}$ , this temperature being sufficient for the plants when in their state of rest.

WATER.—When in a vigorous growing state, they will require it to be given with a liberal hand; but when dormant, only a little will be necessary. A moist atmosphere, particularly in the evening, is very beneficial to them.

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A List of ORCHIDEOUS PLANTS that will succeed in a heat of  $65^{\circ}$  to  $70^{\circ}$ . By P. DON, Tooting Nursery\*.

Name.	Introduced in	Native of
Catasetum tridentatum	1823	Demerara.

\* P. N. Don is foreman to Messrs. Rollinson, Tooting Nursery.

Catasetum	trifidum	1832	Brazil.
————	Deltoidium	1834	Demerara.
————	cristatum	1836	
————	barbatum	1834	
————	longifolium	1838	
————	citrincum	1833	Brazil.
————	maculatum	1836	Mexico.
————	caminatum	1840	

All these will do well if potted in turfy peat and a little leaf soil. In potting the plants, care should be taken that they are not put in too large pots, and as soon as they have perfectly completed the pseudo-bulbs, they should be allowed to go to rest, and no water should be given them until the time they begin to grow, and but very little only until they have made pretty good progress; for if much water is given when the plants are in a young state, they are very apt to go off. It would be well, before the growing season commences, to shake the plants out of their pots, and to put them up on some dry shelf for a month previous to potting them, and before potting, all the old roots should be cut off.

Stanhopea	grandiflora	1827	Brazil.
————	oculata	1829	Demerara.
————	insignis	1818	S. America.
————	saccata	1835	Guatemala.
————	venusta	1833	Do.
————	aurea	1836	Do.



Stanhopea	Wardii	1836	Mexico.
————	tigrina	1836	Do.
————	Devonianensis	1835	Do.

All these are beautiful, I may say splendid. They should be grown in baskets made either with wire or wood : I should recommend square baskets made of oak batlins, as being much better than wire. They should be grown in sphagnum, with turfy peat, and suspended from the rafters of the house, but not near where the air is allowed to come in. In the resting season they should not have any water, but in the growing season plenty should be given, and it should be of the temperature of the house, or even above it rather than below it. The season of flowering for these plants depends much on that in which they begin to grow, for they flower at various times in the year.

Gongora	atropurpurea	1824	Trinidad.
————	maculata	1830	Demerara.
————	ignea	1835	

This genus will do well either in pots or baskets, if the soil used is turfy peat and a little sphagnum. They flower nearly all the year round ; are beautiful, and at the same time curious in their formation. The flowers resemble the giraffe in heraldry.

Coryanthes	maculata	1829	Demerara.
————	speciosa	1826	Brazil.
————	macrantha	1826	Caraccas.

A most beautiful and singular genus; the form

of the flowers is that of a small helmet, similar to that worn by the Life-guards. Baskets or pots do well for this genus to grow in, if the soil used is turfy peat, and a large portion of sphagnum cut small. The pots in which these plants are grown should be shallow, as deep pots require a great many potsherds to fill them up with, which is of no service to the plants. If they are grown in pots, they should be raised two or three inches above the rim of the pot, as the flower goes downwards. All orchideous plants require a season of rest, as they will never flower well, nor grow without it.

Cycnoche Loddigesii	1830	Surinam.
———— chlorochilon	1838	Demerara.
———— ventricosum	1835	Guatemala.
———— multiflorum	1839	Mexico.
———— maculatum	1837	Span. Main.

These require nearly the same treatment as that for catasetum. This genus I should recommend to the attention of all lovers of the singular forms of nature. The column has the fanciful resemblance to the neck of a swan, while the lip forms the body to the same: two of the species are of a yellowish green, and have a strong scent of rhubarb; while the other two have the flowers spotted, but not so strong a scent as the other.

Maxillaria Harrisoniæ	1829	Brazil.
———— aromatica	1825	Do.
———— Deppii	1828	Mexico.

Maxillaria Parkeii	1826	West Indies.
———— picta	1826	Brazil.
———— aureo-fulva	1837	Do.
———— racemosa	1825	
———— cristata	1834	Trinidad.
———— tenuifolia	1837	Mexico.
———— Barringtoniæ	1790	West Indies.
Ornithidium coccineum	1790	Do.
———— album	1832	Trinidad.
Acropera Loddigesii	1828	Mexico.
———— citrina	1834	Brazil.
Zygopetalon rostratum	1825	Demerara.
———— Mackaii	—	Brazil.
———— crinatum	1829	
———— maxillare	—	
———— cochleare	1834	Trinidad.

Maxillaria, ornithidium, acropera, zygopetalon : all these require nearly the same treatment, that is, they should be potted in shallow pots, in very turfy peat ; and they should not be set very much above the rim of the pot : the pot should be well drained. They will require plenty of water when growing, but little or none when they are at rest.

Lissochilus speciosus 1818 C. of G. Hope  
 ————— streptopetalus 1822

This genus requires to be grown in a pot, in turfy loam and sand, with a little leaf soil, and the pot should have a good drainage. When growing, a copious supply of water should be given ; but

when done growing it should be withheld, but renewed when it again begins to grow.

<i>Brassia maculata</i>	1806	Jamaica.
—— lanceana	1833	Surinam.
—— candata	1823	West Indies.

These require to be grown in pots and turfy peat, with the pots well drained.

<i>Oncidium papilio</i> (the butterfly plant)	} 1823	Trinidad.
—— luridum		
—— bifolium	1811	S. America.
—— lanceanum	1834	Surinam.
—— Cavendishianum	1836	Guatemala.
—— ornithorhynchum	1826	Mexico.
—— crispum	1831	Brazil.
—— flexuosum	1818	Do.

All these will do well, grown in pots with turfy peat and large pieces of bark; the pots should be shallow. *Bifolium* must be grown on a log of wood; it will not do in a pot.

<i>Renanthera coccinea</i>	1816	China.
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This ought to be put in a pot and some large pieces of wood for it to run upon: as it will run a great way, it should be trained on pieces of wood along the house, near the glass. It is a lovely plant.

<i>Odontoglossum cordatum</i>	1837	Mexico.
—— grande	1835	Do.
—— Insleayii	1835	

This is a most lovely genus, and well deserves cultivation. They will do well if grown in moderate sized pots, and care taken that they do not have over much water. The pots should be shallow, and the soil best for their growth, turfy peat and bark in pretty large pieces. They should be elevated a little above the rim of the pot. When potsherds are used for drainage of the pots for orchideæ, the potsherds should never be laid flat, but placed upright, as that allows the water to pass more freely through.

<i>Eulophia ensata</i>	1825	C. of G. Hope.
———— <i>triste</i>	1825	
———— <i>barbatum</i>	1822	

The best soil for this tribe is leaf mould and loam, in equal portions, with a portion of cally sand. As soon as they have done growing, the plants should be allowed to go to rest in some dry and cool place until they begin again to grow.

<i>Grobya Amherstiæ</i>	1829	Brazil.
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This does best grown in a basket or on a log of wood; it should have plenty of water when in a vigorous state, but not any when done growing.

<i>Cattleya labiata</i>	1818	S. America.
———— <i>Forbesii</i>	1823	Brazil.
———— <i>Harrisoniana</i>	1812	Guiana.
———— <i>citrina</i>	1838	Mexico.
———— <i>Mossiæ</i>	1836	La Guayra.

<i>Cattleya speciosa</i>	1834	
——— <i>Skinnerii</i>	1836	Guatemala.

All these do well potted in turfy peat, with the exception of *citrina*, which requires to be grown on a piece of wood. When these plants have done growing they should have a rest. It is one of the most beautiful of the orchideous genera, and being most easy of cultivation, no persons should be without these plants in their stoves.

<i>Lælia anceps</i>	1834	Mexico.
—— <i>Barkeriana</i>	1835	
—— <i>albida</i>	1838	
—— <i>purpurescens</i>	—	
—— <i>majalis</i>	1839	
—— <i>superbians</i>	1839	Guatemala.
—— <i>autumnalis</i>	1838	Mexico.
—— <i>grandiflora</i>	1839	
—— <i>furfuracea</i>	1838	Mexico.
—— <i>acuminata</i>	1839	
—— <i>cinnabarina</i>	1836	Brazil.

All these should be grown on logs of wood, as they do not answer well with pot culture. When they are put on the logs, sphagnum should be used, and the plants should be fastened on with copper wire, for that is stronger than zinc. Great care should be taken that no water gets into the hearts of the young shoots, as that will be sure to destroy them, and perhaps the whole plant. They should



not be kept too wet, but slightly moistened every day as long as they continue to grow, and kept perfectly dry when they have done growing. It is a lovely genus, and will well repay the little trouble that is bestowed upon it, with a brilliant show of rich coloured flowers, not surpassed by any genus of orchideæ.

*Broughtonia sanguinea* 1793 Jamaica.

This should be grown on a log of wood, with a little sphagnum, it requires only little water.

*Leptotes bicolor* 1830 Brazil.

A small basket or a log of wood does equally well for this. It is a lovely little plant.

*Mormodes atropurpurea* 1834 Spanish Main.

———— *pardina* 1836 Mexico.

———— *buccinata* 1838

This species requires nearly the same treatment as that for *catasetum*. It is a very singular genus, the column is turned awry or twisted, which gave rise to the name *mormodes* or hobgoblin, from its fanciful resemblance to that.

*Epidendrum Skinneri* 1835 Guatemala.

———— *cochleatum* 1786 West Indies.

———— *cuspidatum* 1808

———— *tibicinum* 1836 Honduras.

———— *macrochilum* } — Mexico.  
(purple lip)

———— *selligerum* 1835 Guatemala.

<i>Epidendrum aromaticum</i>	—
———— <i>alatum</i>	—
———— <i>aloefolium</i>	1837 Mexico.

All the epidendreae will do well in pots, with turfy peat ; the pots should be shallow, or if otherwise they should be filled up nearly to the top with potsherds. *Ep. aloefolium* and *tibicinum* will require to be put on logs of wood, as they do not answer well in pots or baskets. All these species of this genus here inserted are beautiful.

*Trichopilia tortilis* 1835 Mexico.

This does well either in a pot or basket, with turfy peat and sphagnum.

*Galeandra Baneri* 1837 Mexico.

This will also do well in a pot or basket, or even on a log of wood. It is a splendid plant, and deserves the greatest care in cultivation.

*Cyrtopodium Andersonii* 1804 West Indies.

———— *punctatum* 1834 Demerara.

These require the same treatment as *Catasetum*.

P. N. DON.

## ERRATA.

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- Page 19, *for* Bilbergia Zeberina, *read* Billbergia Zebrina.  
36, *for* Dentzea, *read* Deutzea.  
102, *for* Rosa, *read* Rosea.  
111, *for* Ligter, *read* Ligtu.  
115, *for* Ternata, *read* Ternatea.  
134, *for* Polyanthes, *read* Polyanthus.  
136, *for* Syphocampelis, *read* Sephelocamphilus.

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